Rasa ERENTAITĖ

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Gender Identity and Its Links to Other Aspects of Psychological Functioning in Adolescence

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1. INTRODUCTION

1.1 Relevance of the study

The psychological and emotional significance of gender identity (defined broadly as a sense of gendered self) during the course of a person's life has been stressed by scholars in different theoretical paradigms. Some researchers see gender identity as a more important predictor of different aspects of psychological functioning than a person's biological sex (e.g. Unger, 1979). Others see gender identity and cultural expectations regarding gender roles as deeply related to the emotional, psychological and material life of an individual (Chodorow, 1989). Cognitive theorists emphasise the links between gender identity and such aspects of psychological functioning as a need for cognitive consistency and positive self-regard (Kohlberg, 1966). From a social cognitive perspective, gender identity is related to an individual's self-regulation – the more central that gender identity is to a person's self-perceptions, the more gender-based is his or her self-regulation (Bussey, 2011).

In adolescence, during pubertal maturation and sexual differentiation of the body, gender identity becomes particularly closely linked to the emotional and psychosocial functioning of the person. As the body matures, it acquires more gendered cultural and symbolic meanings, and the sense of gendered self becomes involved in the regulation of self-esteem (Meissner, 2005). According to the gender intensification hypothesis (Hill & Lynch, 1983), pubertal maturation facilitates the development of gendered identifications, and both adolescents themselves and socialisation agents react increasingly to adolescents as gendered beings. It is believed, that the dynamics and resolution of gender identity in adolescence, in conjunction with sexual identity, has important interpersonal, social and individual consequences (Meissner, 2009).

Adolescence is also characterised by increasing gender differentiation in some aspects of psychological functioning, particularly, with regard to some psychological difficulties and aspects of well-being. Empirical findings document consistent gender differences in relation to depression and depressive symptoms (Ge, Conger, & Elder, 2001; Hankin et al., 1998; Nolen-Hoeksema & Girgus, 1994; Priess, Lindberg, & Hyde, 2009); measures of global self-esteem (Birndorf, Ryan, Auinger, & Aten, 2005; Kling, Hyde, Showers, & Buswell, 1999; Simmons & Rosenberg, 1975); interpersonal functioning (Rose & Rudolph, 2006); and externalising behaviours (e.g. Archer, 2004). Researchers have suggested different models to explain these empirically supported gender differences. Apart from biological, affective and cognitive risk factors, a group of factors related to gender identity are often included in these models (e.g. Hyde, Mezulis, & Abramson, 2008; Slater, Guthrie, & Boyd, 2001; Wichstrøm, 1999). Gender-role conflict (Choi, Kim, Hwang, & Heppner, 2010); gender ideologies (Tolman, Impett, Tracy, & Michael, 2006; Impett, Sorsoli, Schooler, Henson, & Tolman, 2008); gender-role orientations (Hoffmann, Powlishta, & White, 2004; Johnson, Mcnair, Vojick, Congdon, Monacelli, & Lamont, 2006; Theran, 2009); and different gender-identity

dimensions (Egan & Perry, 2001) have already been shown to contribute significantly to the understanding of psychological difficulties and well-being, including within and between gender differences. These findings point to the importance of clarifying the relationship between gender identity and psychological difficulties and well-being in adolescence.

However, large gaps exist in this research field. Most of the psychological conceptual and empirical work, which has advanced the understanding of gender identity and its links to psychological difficulties and well-being, comes from studies with children. The result of the historical tendency to study gender in childhood is that, at the moment, much less is known about gender identity and various aspects of gender-related functioning in adolescence than in childhood, and this gap has recently been emphasised by several gender researchers (Clemans, DeRose, Graber, & Brooks-Gunn, 2010; Galambos, Berenbaum, & McHale, 2009; Tobin, Menon, Spatte, Hodges, & Perry, 2010). This study was designed to address the lack of attention to the problem of gender identity and its links to psychological difficulties and well-being in adolescence by applying a contemporary multidimensional approach to gender identity. It aims to evaluate the links that particular aspects of gender identity have with important indicators of psychological difficulties and well-being in adolescence.

1.2 Scientific problem and novelty of the study

This study contributes to the scientific analysis of adolescent gender identity and its role in predicting important aspects of adolescent psychological functioning. Even though psychological functioning is a broad term that covers a large spectrum of psychological phenomena, including identity, in this study the term is used to refer to a given set of psychological difficulties and aspects of well-being that are important during adolescence.

The questions regarding whether, and how, particular gender-related factors, such as gender typicality, adherence to stereotypical gender roles or felt pressure to conform to gender norms, are related to various aspects of psychological difficulties and well-being at different ages has long been discussed in psychological literature. Most studies in this area explored how gender identity was linked to particular indicators of difficulties (e.g. depressive symptoms), and well-being (e.g. self-esteem). In other words, the majority of previous studies attempted to address the question whether certain aspects of gender identity were favourable for a person's psychological functioning. The results of decades of research, however, are inconsistent.

The earliest hypothesis, called the sex-gender congruency hypothesis, suggested that stronger internalisation of masculinity for males and femininity for females was related to more adaptive psychological functioning (Page & Warkentin, 1938; Terman & Miles, 1936). This hypothesis was later challenged by the idea of androgyny and a suggestion that in order to achieve optimal functioning an individual of any sex had to internalise both masculine and feminine attributes and roles (Bem, 1974, 1981; Bem & Lewis, 1975; Bem, Martyna, & Watson, 1976; Gilbert, 1981; Spence, Helmreich, & Stapp, 1975). This second, androgyny, hypothesis was shortly followed by the masculinity hypothesis,

which stated that internalisation of masculinity (or, more precisely, instrumental traits) was beneficial for both – men and women in terms of their psychological functioning (Whitley, 1983). Though early meta-analytic reviews (Bassoff & Glass, 1982; Whitley, 1983, 1985; Taylor & Hall, 1982) supported androgyny and masculinity hypotheses, but not the sex-gender congruency hypothesis, the findings, inconsistent with these conclusions, continued to emerge in the three subsequent decades of research.

These inconsistencies appeared, to a large extent, due to differing approaches to gender identity taken by researchers (Lurye, Zosuls, & Ruble, 2008). Over the decades, the concept of gender identity has varied and changed substantially. Early research was based on either a bipolar or a two-dimensional understanding of the concept as self-attribution of feminine (expressive) or masculine (instrumental) traits. Moreover, the first measures of gender identity included desirable gendered traits only, which biased the findings (Aubé & Koestner, 1992; Holahan & Spence, 1980; Spence, Helmreich, & Holahan, 1979). On the basis of criticisms of these early conceptualisations, a new understanding of gender identity started to emerge in the psychological literature at the beginning of the 1980s. The main feature of this new approach has been an acknowledgement of the multidimensionality of gender-related constructs, including gender identity (Egan & Perry, 2001; Spence, 1984, 1993; Spence & Buckner, 1995). Even though the components proposed by different authors as elements of gender identity varied to some degree, a consensus among researchers exists today that it is a multidimensional construct.

With the acknowledgement that gender-related psychological phenomena, including gender identity, are complex multidimensional entities, researchers also had to rephrase the question regarding the links between gender identity, and psychological difficulties and well-being. From a contemporary multidimensional understanding, a simple, one-directional hypothesis regarding these links is not possible. Instead, the question has to be viewed on several levels. Firstly, *what are the main dimensions of gender identity*? Secondly, *what are the links of each of the dimensions of gender identity to particular indicators of difficulties and well-being*? Finally, *what relationships and interactions between gender-identity dimensions are important and what is the relative importance of separate dimensions in predicting psychological difficulties and well-being*?

All of these questions still require scientific exploration, since the multidimensional conceptualisation of gender identity, and research applying this perspective, has only been proposed relatively recently. The results from recent research provide support for the existence of the links between different aspects of gender identity and psychological difficulties and well-being. These studies also show that specific gender-identity dimensions relate differently to particular indicators of difficulties and well-being, in some cases – in opposite ways. However, the findings are not always consistent across studies with regard to particular dimensions and indicators. Moreover, most of the previous studies in this area evaluate the links between separate gender-identity dimensions without controlling for the rest of the construct, that is, other dimensions of gender identity. Thus, unique relationships between gender-identity dimensions and particular indicators of difficulties and well-being remain unclear. In addition, very few previous studies in this area control for other important aspects of gender cognition,

particularly, for gender stereotypes, when assessing the links between gender identity and other constructs, which prevents the identification of true relationships (Tobin et al., 2010).

We address the outlined research problems by applying the multidimensional model of gender identity and exploring the dimensions that received the widest interest from researchers over the last decade of research. According to the multidimensional model, gender identity includes gender typicality, gender contentedness, felt pressure to conform to gender norms, and potentially other aspects (all discussed in detail in Chapter 3.2). This multidimensional model of gender identity was first conceptualised by Egan and Perry (2001); was subsequently empirically tested by Carver, Yunger and Perry (2003); Yunger, Carver and Perry (2004); Smith and Leaper (2006); Corby, Perry and Hodges (2007); Bos and Sandfort (2010); Yu and Xie (2010); and Jodoin and Julien (2011); and was further revised and contextualised by Tobin et al. (2010) and Perry and Pauletti (2011).

Besides defining the concept of gender identity, it was also crucial in this study to select the most appropriate indicators of psychological difficulties and well-being. The concepts of psychological difficulties and well-being are both very wide and cover a wide range of psychological phenomena. Usually a certain number of indicators, indices or dimensions of difficulties and well-being are selected to be included in a study. However, the set of indicators used varies quite considerably across psychological studies – it can be determined by the age group under study or the field of interest of the researcher. Thus, in each study, it is important to select the most relevant and optimal set of indicators. The selection of particular indicators of psychological difficulties and well-being in this study was based upon the following three principles: 1) the use of a balanced number of indicators of psychological difficulties and well-being; 2) theoretical validity, that is, the existence of a theoretical hypothesis regarding the link between gender identity and a particular indicator of psychological functioning; or the existence of an etiological model for a particular difficulty or aspect of well-being that includes some aspects of gender identity; and 3) the prioritising of the indicators recommended in the literature as the most developmentally relevant for the period of adolescence. Based on these principles, a battery of indicators was formed, which included three measures of psychological difficulties (depressive symptoms, loneliness and delinquency), and three measures of well-being (self-esteem, self-efficacy and satisfaction with one's life).

1.3 Aims of the study

This study has two broad *aims as follows*: 1) to identify and validate the structure of gender identity in a middle- to late-adolescent sample in Lithuania; and 2) to identify the links between gender-identity dimensions and selected indicators of psychological difficulties and well-being. This study will *contribute to the field by*: 1) empirically extending the multidimensional understanding of gender identity to middle- to late-adolescence; 2) identifying the direction and strength of unique links between the dimensions of gender identity and important indicators of adolescent psychological

difficulties and well-being; 3) evaluating the extent to which a given set of gender-identity dimensions may contribute to explaining particular difficulties and aspects of well-being in adolescence.

1.4 Approbation of study results

The doctoral dissertation was discussed and approbated at the meeting of Institute of Psychology of Mykolas Romeris University, which took place on 10 January 2013. The research findings were also approbated through participation in scientific conferences and papers in scholarly journals.

List of scientific publications

Some results of this doctoral study were published in the following scientific papers:

1. **Erentaitė, R.,** Malinauskienė, O. (2012). Moteriškumo ideologijos sąsajos su paauglių merginų depresiškumu, savęs vertinimu bei subjektyviu pasitenkinimu gyvenimu. *Tarptautinis psichologijos žurnalas: Biopsichosocialinis požiūris*, *11*, 49-74. doi: 10.7220/1941-7233.11.3

2. **Erentaitė, R.,** Žukauskienė, R. (2010). Gender identity and internalizing symptoms among Lithuanian adolescents. R. Žukauskienė (Ed.) *Proceedings of the XIV European Conference on Developmental Psychology* (pp. 524–529). Bologna: Medimond. ISBN 978-88-7587-584-8

3. Malinauskienė O., Vosylis R., **Erentaitė R.,** Žukauskienė R. (2010). Vyresniųjų paauglių lyties tapatumo ir tėvų auklėjimo stiliaus ryšiai. *Socialinis darbas, 9*(2), 135–143. ISSN 1648-4789

4. **Erentaitė, R.** (2009). Lyties tapatumo dimensijos ir psichologinis prisitaikymas vėlyvojoje paauglystėje. In I. Salialionė, A. Kairys (Eds.) *Žmogus XXI amžiuje: kas naujo? VI Jaunųjų mokslininkų psichologų konferencija.* (pp. 82–89). Vilnius: Vilniaus universiteto leidykla. ISBN 978-9955-33-457-6

Other related publications over the period of doctoral studies:

Publications referred in Thomson-Reuters (ISI) Web of Science

1. Berne, S. Frisén, A., Schultze-Krumbholz, A., Scheithauer, H., Naruskov, K., Luik, P., Katzer, C., **Erentaite, R.,** Zukauskiene, R. (2013). Cyberbullying assessment instruments: A systematic review. *Aggression and Violent Behavior*, *18(2)*, 320–334. doi: 10.1016/j.avb.2012.11.022

2. **Erentaitė, R.,** Žukauskienė, R., Beyers, W., Pilkauskaitė-Valickienė, R. (2012). Is news media related to civic engagement? The effects of interest in and discussions about the news media on current and future civic engagement of adolescents. *Journal of Adolescence*, *35(3)*, 587–597. doi: 10.1016/j.adolescence. 2011.12.008

3. **Erentaitė, R.,** Bergman, L.R., Žukauskienė, R. (2012). Cross-contextual stability of bullying victimization: A person-oriented analysis of cyber and traditional bullying experiences among adolescents. *Scandinavian Journal of Psychology*, *53(2)*, 181–190. doi: 10.1111/j.1467-9450.2011.00935.x

4. **Erentaitė, R.** (2011). 'We are simply more beautiful': counterstories of Lithuanian migrant women in London. In E. H. Oleksy, J. Hearn, & D. Golanska (Eds.) *The limits of gendered citizenship. Contexts and complexities* (pp. 212–225). London: Routlegde.

Publications referred in other international scientific databases

1. **Erentaitė, R.,** Pilinkaitė-Sotirovič, V. (2012). Lyties aspektas migracijos procesuose: trečiųjų šalių piliečių situacijos Lietuvoje analizė. Etniškumo studijos, *12(1–2)*, 178–203. ISSN 1822-1041.

2. Žukauskienė, R., Malinauskienė, O., **Erentaitė, R.** (2011). Tėvų auklėjimo stiliaus ir emocinio intelekto sąsajos su vyresniųjų paauglių saviveiksmingumu bei saviverte pagal lytį. *Psichologija*, *44*, 22–41. ISSN 1392-0359.

Selected conference presentations

1. **Erentaitė, R.** (2011, May). Vyresnių paauglių merginų moteriškumo ideologijos ir emocinių sunkumų sąsajos. Paper presented at the Lithuanian Congress of Psychology (Psichologija pokyčių laikotarpiu: Lietuvos psichologų kongresas), Vytautas Magnus University, Kaunas.

2. **Erentaitė, R.** & Žukauskienė, R. (2010, July). Gender identity and peer victimization: different interactions for adolescent boys and girls. Poster presented at the 21st Biennial Congress of the International Society for the Study of Behavioural Development, Lusaka.

3. **Erentaitė, R.** & Žukauskienė, R. (2010, April). Gender-related pressures and well-being among late adolescents: The role of gender contentedness and felt normative pressure. Poster presented at the 4th Gender Development Research Conference, San Francisco, California.

4. **Erentaitė, R.,** Ustinavičiūtė, L., & Žukauskienė, R. (2009, August). Victims and bullies in cyber space: Does gender identity play a role? Poster presented at the 14th European Conference on Developmental Psychology, post conference workshop Cyberbullying: Definitions and Measurement Issues, Mykolas Romeris University, Vilnius.

5. **Erentaitė, R.** & Žukauskienė, R. (2009, August). Multidimensional gender identity: Implications for psychosocial adjustment in late adolescence. Poster presented at the 14th European Conference on Developmental Psychology, Mykolas Romeris University, Vilnius.

6. **Erentaitė, R.** (2009, May). Gender identity dimensions and psychosocial adjustment in late adolescence. Poster presented at the UPSIDE conference The Nuts and Bolts of Longitudinal Research, Uppsala.

7. **Erentaitė R.** (2009, May). Lyties tapatumo dimensijos ir psichologinis prisitaikymas vėlyvojoje paauglystėje. Paper presented at the 6th Young Psychology Researchers Conference, Vilnius University, Vilnius.

8. **Erentaitė, R.** (2008, September). Gender compatibility and adjustment from a longitudinal perspective: data analysis plan. Paper presented at the meeting of the Baltic-Nordic Network of Graduate Psychology Students, Vilnius University, Vilnius.

2. CONCEPT OF GENDER AND ITS TENSIONS IN PSYCHOLOGY

The concept of gender is one of the broadest and most salient social categories used in the social sciences and humanities, along with age, class, and race or ethnicity. In its broadest sense, the concept of gender signifies certain social arrangements centred on the sexual-reproductive distinctions, and a set of practices that relate these reproductive distinctions (or 'translate' biological reproduction) to social relations and processes (Connell, 2009). In this definition, the main focus is on gender as a particular set of social relations and as the enduring patterns of these social relationships – social structures (Connell, 2009) or institutions (West & Zimmerman, 1987). There are four broad levels of social structures and relations at which gender can be recognised (Connell, 2009): power relations (decision-making, participation in the public domain, access to rights, violence), production and consumption relations (economy, division of labour in the market and in the family, access to goods and services), emotional relations (intimate relationships, sexuality, affect), and symbolic relations (discourse, culture, visual representation, art, fashion, etc.). Across all of these levels there are boundaries, which delineate and define gendered positions, roles and characteristics. These boundaries can vary to a certain degree across cultures and times, and by age, class and other social dimensions, but the delineations remain attached to the concept of gender.

The boundaries that delineate gender across all of these levels are not power-neutral. Rather, they influence access to power and resources and are attached to certain inequalities (Sherif, 1982; Shields & Dicicco, 2011), which manifest themselves in different ways at all levels of relations – power, production, emotional and symbolic. Thinking about gender across all of these levels illustrates how gender boundaries and inequalities are intertwined. Power over women at symbolic and emotional levels works to maintain existing power gaps in social power and production levels, and vice versa. For example, widespread portrayals of women as predominantly passive sexual objects, designed to please desires associated with hegemonic masculinity, parallels gender inequalities on a decision-making or economic level – where men have more power than women, as indicated by macroeconomic and other global indicators (e.g. Hausmann, Tyson, & Zahidi, 2011). In her 1976 paper, Unger proposed that status inequality is socialised with gender and thus gender differences can, to a large extent, be explained by asymmetries in status rather than sex per se. Thus, gender, status and inequalities are closely intertwined conceptually and empirically.

In addition to certain boundaries and power hierarchies, the third characteristic that is important to the conceptualisation of gender is normativity. According to West and Zimmerman (1987) gender is 'the activity of managing situated conduct in light of normative conceptions of attitudes and activities appropriate for one's sex category' (p. 127). Normativity and sociocultural approval are at the key to understanding what gender is and how it works. As a normative concept, gender always carries a regulatory and ideological aspect, which works to maintain and reproduce particular boundaries (roles, behaviours, patterns of relationships as appropriate for each sex). The normative

aspect of gender is reflected in certain definitions and concepts used in psychological literature on gender. For example, a well-known distinction between descriptive and prescriptive gender stereotypes (e.g. Thompson, Pleck, & Ferrera, 1992) indicates that these stereotypes consist of more than merely their content (i.e. beliefs about how women are different from men), but also include a regulatory, normative, prescriptive aspect (i.e. beliefs regarding how women and men *should* differ). Gender norms usually do not specify exact behaviours but instead prescribe ranges for acceptable behaviours and for unacceptable conduct and activities (Sherif, 1982).

The concept of gender, as outline above, is not as clear and consistent in psychology, and this inconsistency is first evident in psychological terminology (Unger & Crawford, 1993). Traditionally, psychological research has focused on the concept of sex, that is the biological distinction between male and female, and equated it with the concept of gender (using the terms interchangeably or using one and meaning the other). Unger (1979) distinguished between the concepts of sex and gender and suggested the term 'gender' be used when referring to 'those nonphysiological components of sex that are culturally regarded as appropriate to males or to females' (p. 1,086). The term 'nonphysiological' was later reconsidered, stating that sociocultural and biological influences are all intertwined in shaping any psychological function, including gendered behaviours and cognitions (Maccoby, 1988; Unger & Crawford, 1993), thus, the definition of gender could be rephrased as concepts of femininity and masculinity in a given sociocultural context. Though the traditional approach of equating sex and gender has been increasingly challenged by feminist psychologists (Shields & Dicicco, 2011), some scholars see the situation as largely unchanged (e.g. Hyde, 2005; Zucker & Ostrove, 2007; Zurbriggen & Sherman, 2007). It can be contended that long-term difficulties in the conceptualisation and operationalisation of gender in psychology have been important factors in hindering the understanding of the significance of gender for various aspects of psychological functioning.

Though it has been previously emphasised that gender has both structural and intra-psychic levels (Sherif, 1982; West & Zimmerman, 1987; Zucker & Ostrove, 2007), psychologists have always been more interested in the intra-psychic aspects of gender (Unger & Crawford, 1993). This study also focuses on the intra-psychic aspects of gender. It should be acknowledged though, that focusing on gender as a merely intra-psychic phenomenon is a limited approach and may lead to gendered social processes and structures, in which individuals function, and which produce a wide variety of gendered phenomena, including important aspects of gender identity being overlooked (Wood & Eagly, 2002). Thus, on a broader conceptual level, in particular, for understanding the main theoretical constructs and interpreting the major findings of the study, the understanding of gender that includes both intra-individual and structural levels has to be applied.

3. CONCEPTUALISATIONS OF GENDER IDENTITY IN PSYCHOLOGY

The concept of gender identity has been defined in various ways in psychology and related fields of study (Bussey, 2011). The terms used to indicate the construct of gender identity or different components and aspects of it are also largely variant (Spence, 1984; Tobin et al., 2010). Thus, in this chapter, the consistencies and major conceptual developments related to the construct of gender identity in psychological literature are identified. Firstly, a broad definition of gender identity is provided and it is placed in a wider context of research on gender and identity in psychology, next the structural approach to gender identity is discussed and finally the main dimensions of gender identity relevant for adolescents are presented. At the end of the chapter, a wider perspective is returned to and gender identity and gender stereotypes are discussed as interrelated aspects of gender cognition.

Gender identity is conceptualised as one of the four major gender-related psychological constructs, along with gender concepts or beliefs, gender-related preferences and gendered behavioural enactment (Galambos et al., 2009; Huston, 1983; Ruble, Martin, & Berenbaum, 2006). These are the aspects of a broad concept of gender, which are analysed in psychology and operationalised through measurable variables in psychological research. The four constructs refer to cognitions, emotions and behaviours to a varying degree, and all of them apply in different content areas, such as the body, activities and interests, personal–social attributes, social relationships, styles and symbols, and values (Ruble et al., 2006). Even though initially this categorisation of gender-related constructs was proposed in the context of research with children, subsequently in a review by Galambos et al. (2009) it has been reconsidered as a useful working classification of gender-related constructs in research with adolescents also.

This classification, though not always ensuring clear-cut distinctions between the four major gender-related psychological constructs (Ruble et al., 2006), is nevertheless useful in defining each of the constructs, including gender identity. According to this classification, *gender identity* is synonymous with *gender-related self-perception* and has two interrelated properties: *cognitive* – perceptions of one's self as a person of a particular sex/gender, and *affective* – feelings related to the perceptions of belonging to a particular sex/gender (Ruble et al., 2006). Developmental constructivist theories of gender also emphasise *the third property of gender identity – motivation*; from Kohlberg's study in 1966, gender identity has been considered as one of the main sources of motivation for children to adhere to stereotypical gender roles and acquire gender-consistent characteristics. Contemporary cognitive theorists also see gender identity as a motivator for gender self-socialisation (Liben & Bigler, 2002; Martin, Ruble, & Szkrybalo, 2002; Tobin et al., 2010). There seems to be consensus in psychological literature acknowledging the three aspects of gender identity: cognitive, emotional and motivational.

Apart from being one of the major gender-related psychological constructs, gender identity can also be viewed as a part of a person's broader concept of personal identity.

Different authors have stressed the importance of gender identification for an overall personal sense of self (Chodorow, 1989), and the importance of gender in identity formation in general (Kroger, 2008; Marcia, 1980). However, direct links between gender identity and general personal identity are largely not reflected in the psychological literature and a wide gap in the theory and a lack of integration of empirical findings can currently be observed between the two fields of study. On the one hand, such a situation can be explained by a high fragmentation of research on identity in general (Schwartz, Luyckx, & Vignoles, 2011). As observed by Schwartz et al., 'many of the subfields of identity operate almost in isolation, such that often they are hardly aware of one another's existence' (Schwartz et al., 2011, p. ix).

On the other hand, the lack of integration between literature on gender and that on general identity may be attributed to the fact that some important perspectives in the study of general identity are not applied in its study. In particular, analysis of developmental stages/statuses (i.e. the research tradition, which began with Marcia (1966)) and processes or mechanisms of identity development (e.g. Berzonsky, 1989; Meeus, Iedema, & Maassen, 2002) are widely applied in research on various domains of identity and general identity in the period of adolescence. However, such emphasis on dynamics and development is not present in research on adolescent gender identity.

Indeed, early theorists, for example, Kohlberg (1966), considered gender identity to be one of the most stable of all social identities after its development early in life. Gender identity was considered completely formed, firm and stable for most children by the age six or seven (Kohlberg, 1966), or even earlier (Maccoby, 1998). Kohlberg (1966) suggested that the main developmental phases of gender identity happened in childhood: basic gender identity was achieved at approximately two to three years of age, gender stability occurred at approximately three to four years of age, when children understood that basic gender identity did not change over time, and finally, by the age of six or seven, the phase of gender constancy (or gender conservation) was achieved, in which a child could understand that one's gender did not change with external changes such as hair length, clothing or behaviour. After this, the phase of gender constancy and clarity was maintained (Kohlberg, 1966), and within-group variability on gender identity became increasingly small.

Even though currently it is acknowledged that gender-identity formation is not fixed at any point in time, but rather is an ongoing process (e.g. Benjamin, 1998; Bussey, 2011), it still is not considered in terms of a dynamic approach beyond the period of childhood. Instead, the major discussions have occurred around the domains and dimensionality of the construct. These discussions together with conceptual developments of the structural perspective to gender identity are presented in the following sub-chapter.

3.1 From singular to multiple domains and dimensions of gender identity

The early understanding of gender identity was based on a bipolar construct of femininity versus masculinity (e.g. Terman & Miles, 1936). Femininity and masculinity were defined as characteristics that differentiated between women and men, and the

construct of gender identity was conceptualised along a unitary dimension, with femininity and masculinity at its opposite ends (Terman & Miles, 1936). Adherence to one of the poles was considered exclusive of adherence to the other. Thus, gender identity was conceptualised along a single dimension of femininity–masculinity, even though the domains that help to differentiate femininity from masculinity could vary (e.g. associations, information, emotional and ethical attitudes, interests, opinions, introversion–extroversion, as in Terman & Miles (1936)).

The early assumption regarding the single dimensionality of gender identity has later been challenged by the concept of androgyny and the two-dimensional approach to gender identity (Bem, 1974, 1981; Bem, Martyna, & Watson, 1976; Constantinople, 1973). As proposed in this approach, gender identity is not reducible to one dimension, but instead has two orthogonal factors – masculinity and femininity. A person could be high on either, both or neither of these factors, and based on this could be classified as either masculine or feminine, androgynous or undifferentiated (Bem, 1974). Based on these categories, a person can also be characterised as sex-typed, cross-sex typed or gender aschematic (Bem, 1981). Sex-typed, gender-schematic people have a strong gender-role identification, learn and display gendered traits, attitudes and behaviours more strongly, and use gender category as an organising principle of perception more often, than gender-aschematic people.

Although this two-dimensional model of gender identity, otherwise called gender-schema theory of gender, provided a more complex and sensitive way to describe individual differences with regard to gender identification, it still considered gender identity to be defined through sex typing (Lurye, Zosuls, & Ruble, 2008). Moreover, it rested on an understanding that sex typing was predominantly related to certain clusters of personality traits (instrumental as masculine and expressive as feminine). This approach to gender identity proved to have inadequate validity, since it has been later shown that self-ratings of instrumental and expressive traits merely capture the degree to which people believe they possess these two specific clusters of traits, but do not necessarily indicate how people perceive themselves in relation to gender categories (i.e. they do not indicate how masculine or feminine a person feels (Spence, 1993; Spence & Buckner, 1995)).

A trait-focused conceptualisation of gender identity has also overlooked the fact that neither gender identity nor sex typing were tied to only one domain of personality traits (Egan & Perry, 2001; Liben & Bigler, 2002; Spence, 1993; Spence & Buckner, 1995), or to desirable traits alone (Aubé & Koestner, 1992; Holahan & Spence, 1980; Spence et al., 1979). As Spence (1993) argued, the sets of male-typed and female-typed attributes are each multifactorial and heterogeneous, made up of different components, like gender-related attitudes, behaviours, preferences that may relate to each other or be completely unrelated, as well as differing in their links with other constructs (Spence, 1984, 1993; Spence & Buckner, 1995). Subsequent research has provided support for the case that individuals are inconsistent in their gender-related characteristics across different domains, such as activities and interests, personal–social attributes, social relationships, and styles, symbols and values regarding gender (Galambos et al., 2009; Ruble et al., 2006). For example, a person's report of their sex typing across these

domains may be inconsistent. At the same time, for Spence (1993) this variation across gendered domains did not necessarily mean fluctuation in identifying with a particular gender group. An individual makes summary judgements across domains regarding his or her gender identity, which is '*a basic psychological sense of belongingness to their own sex*' (Spence, 1993, p. 625). This integrative higher-order sense of gender identity may accommodate certain variations of sex typing across different domains. By referring to gender identity as a sense of belongingness to a particular sex, Spence (1993; Spence & Buckner, 1995) predominantly discussed a higher-order factor of self-perceived gender typicality, that is, to what extent a person feels close to their gender category.

Following the ideas of Spence (1985, 1993), Spence and Buckner (1995), and Spence and Hall (1996) regarding the multifactorial nature of gender identity and the existence of a higher-order integrative (or summary) sense of gender identity, Egan and Perry (2001) proposed their multidimensional gender-identity model, which was developed in line with cognitive developmental theories of gender development (Liben & Bigler, 2002; Martin, Ruble, & Szkrybalo, 2002). According to this model, gender typicality is only one of the aspects of a broad construct of gender identity, and more than one higher-order factor is required in defining a person's gender identity. Thus, *gender identity is a set of self-cognitions, or people's judgements about themselves (representations of self), in relation to their gender category* (Egan & Perry, 2001). In other words, it is a set of thoughts and feelings about one's gender category and membership in it (Carver, Yunger, & Perry, 2003). This definition covers both the subjective, personal (thoughts and feelings) and sociocultural aspects (gender category) that are so inseparably intertwined in the concept of identity in general (e.g. see a review of Eriksonian identity theory and research by Schwarz (2001)). Similarly, as with the general concept of identity, Egan and Perry (2001) contend that there is no one type of self-judgement or single integrative factor that would fully describe a person's gender identity. Rather, they contend that the construct of gender identity is multidimensional; encompassing several distinct categories, or higher-order factors, and that each covers just one aspect of a more complex construct of gender identity.

Egan and Perry (2001) initially proposed that gender identity consisted of the following dimensions: 1) knowledge of one's membership of a gender category; 2) gender compatibility, that is, the feeling that one is compatible with one's gender group, which covers both the perception of one's gender typicality, and feelings of contentment with one's gender; 3) felt pressure to conform to gender norms; and 4) attitudes towards gender groups. After some empirical testing, a couple of conceptual changes were introduced to the initial list of components. In particular, gender typicality and gender contentedness were defined as two separate, though correlated, dimensions, rather than two aspects of one underlying factor – gender compatibility – and the latter term was abandoned in further descriptions of the model (Carver, Yunger, & Perry, 2003; Corby, Perry, & Hodges, & Perry, 2007; Egan & Perry, 2001). In addition, a wide construct of attitudes towards gender groups was not tested empirically as a part of the model. Instead, only one aspect of these attitudes towards was further analysed – intergroup bias (Egan & Perry, 2001).

While the first dimension of gender identity – knowledge of one's gender category membership – is only relevant in childhood, the rest of the dimensions in Egan and

Perry's (2001) model, though also starting to develop in childhood, remain relevant in pre-adolescence, adolescence, and, possibly, later in life. However, previous research using this model focused mostly on early adolescence and pre-adolescence, and studies on gender-identity dimensions during middle and late adolescence are very scarce to date. In general, the applicability of the multidimensional gender-identity model in middle and late adolescence has yet to be established. While the assumption of multidimensionality of gender identity can be extended for later periods of life, the continuity of particular dimensions, their relationships and their links with psychological functioning have still to be tested with regard to later developmental periods, particularly, middle and late adolescence.

The dimensions of gender identity that have received the widest acknowledgement in the psychological literature over the last decade are gender typicality, gender contentedness and felt pressure to conform to gender norms. These three dimensions are discussed in detail in the following chapter. With regard to the fourth factor, attitudes to gender groups (or gender bias, based on later conceptualisations), discussions are still ongoing and though Egan and Perry (2001) classified it as one of the gender-identity dimensions, it was later redefined as a separate, but related, construct with regard to gender identity (Tobin et al., 2010). Some additional factors, for example, the centrality of gender category (Lurye et al., 2008; Tobin et al., 2010), gender schematicity (Liben & Bigler, 2002), and gender oppression (Perry, 2009, personal communication) have been suggested as other dimensions of gender identity besides typicality, contentedness and felt normative pressure. Thus, the debate regarding the structure of gender identity is still ongoing and the number of the gender-identity dimensions has not yet been fully clarified. The working structural model of gender identity is presented in Figure 1.
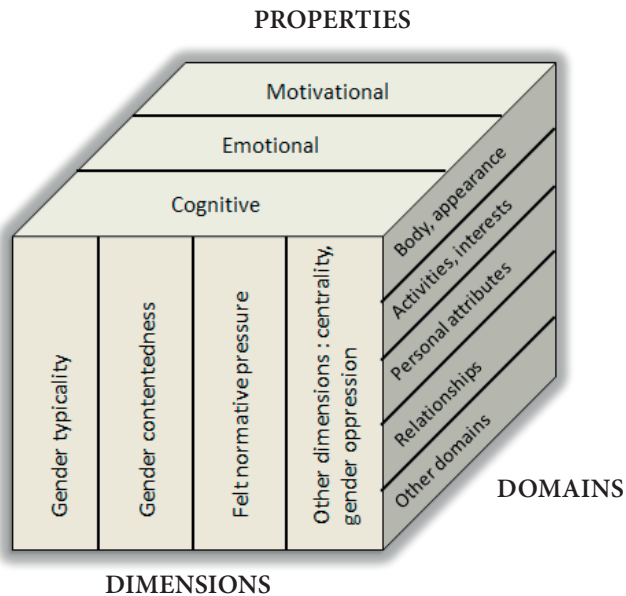

Figure 1. Working model of the structure of gender identity.

3.2 Dimensions of gender identity

In this chapter, the three dimensions of gender identity that received the strongest support in the literature are reviewed. The discussions regarding other possible dimensions of gender identity are also presented, as along with a general framework of gender cognition, which provides a context for understanding and analysing adolescent gender identity.

The first dimension of gender identity – *gender typicality* – has received much attention from gender development researchers and has been defined in different ways. Firstly, a distinction should be made between self-perceived gender typicality and externally-determined ('objectively'-measured) gender typicality. The latter approach is called gender diagnosticity (Lippa & Connelly, 1990) and refers to the statistical procedure when a pool of personal characteristics, activities or professional choices are analysed to determine which of them discriminate best between gender groups. The best are then used to classify individuals based on how gender typical their preferences are (i.e. how men-like or women-like one's pattern of professional preferences is in comparison to groups of men and women in the same sample) (Lippa, 2001). Thus, this approach defines gender typicality based on actual behaviours (e.g. certain preferences). However, gender typicality when determined this way does not correspond to this study's definition of gender identity and thus will not be discussed further. Instead, we focus on gender typicality as a self-perceived attribute. In contrast to gender diagnosticity, the latter approach defines gender typicality through subjective personal self-perceptions.

The category of self-perceived gender typicality has sometimes been used synonymously with gender identity (e.g. Didonato & Berenbaum, 2012). Traditionally, terms, such as sex typing, sex or gender-role orientation or identification, femininity and masculinity have all been used to refer to self-perceived gender typicality (Egan & Perry, 2001; Spence, 2000). Traditionally, self-perceived gender typicality has been conceptualised as a subjectively perceived similarity to certain stereotypically gender-typed attributes, like traits or activities. In contrast to the gender diagnosticity approach, the degree of gender typing here is not determined by a statistical procedure applied by a researcher but is instead subjectively reported by an individual. In this tradition of defining gender typicality*, the content of the stereotype against which typicality is analysed* in the form of certain attributes (traits, activities, professions, etc.), *is defined a priori*, by the researchers. In some cases, the content of the stereotype is defined primarily on theoretical grounds, for example, instrumental traits are defined as masculine-typed and expressive traits are defined as feminine-typed (Bem, 1974, 1981; Bem et al., 1976). In other cases, the content of the stereotype is empirically derived by factor-analysing pools of gender-related items (e.g. Mahalik, Locke, Ludlow, Diemer, Scott, Gottfried, & Freitas., 2003; Mahalik, Morray, & Coonerty-Femiano, 2005). In any case, *gender typicality, when analysed within the traditional perspective, means self-perceived similarity to a set of known attributes, defined as gender-typed a priori by the researcher*.

In contrast, the concept of gender typicality proposed by Egan and Perry (2001) does not define any particular set of attributes as gender-typed, and thus does not analyse gender typicality with respect to a particular known set of characteristics (e.g.

traits, activities). Instead, the assumption is made that each individual has a certain implicit set of characteristics that he or she would define as typical for his or her gender category and against which he or she would assess their own gender typicality. This set of characteristics may vary across individuals (Egan & Perry, 2001; Spence, 1985; Tobin et al., 2010) and groups (e.g. different ethnic groups, Corby, Perry, & Hodges, 2007). This perspective on gender identity permits individuals to apply their own criteria as to what is a 'typical' man or woman (Perry & Pauletti, 2011). Thus, *gender typicality is the degree to which one feels a typical member of one's gender category* (Carver, Yunger, & Perry, 2003). The focus in this definition is on *the subjective relationship with one's gender category*, and what constitutes typicality can only be implied by a researcher and is subject to variation across individuals and groups.

It can be argued that this definition of gender typicality is more consistent with the wider concept of personal identity, since it is focused on subjective thoughts and feelings, rather than external gendered characteristics. In comparison, the previous perspective on gender typicality seems to be defining certain aspects of personality – traits, interests, professional orientations, romantic preferences, etc., rather than personal identity. The problem with such a definition of gender typicality is that a person's self-perceptions may vary considerably across different domains or attributes. It has been observed that the overlap across domains is only modestly consistent (Egan & Perry, 2001; Perry & Pauletti, 2011; Spence, 1985), for example, a girl with high scores on instrumental traits and low scores on expressive traits does not necessarily prefer male-dominated professions, academic paths or leisure activities. Thus, it would be problematic to infer overall gender typicality based on self-perceptions of certain gendered attributes. This problem is arguably not encountered in Egan and Perry's (2001) conceptualisation of gender typicality, since it refers to an overall sense of gender typicality, which the authors argue is based on a summary self-perceived estimate of gender typicality. Based on this concept, people are also generally motivated to maintain the feeling of being gender typical, since the sense of gender atypicality tends to lead to psychological discomfort.

Another dimension of gender identity, which theoretically relates to gender typicality, is *gender contentedness*. Unlike gender typicality, this concept is largely absent from previous literature on gender identity and gender development in a general (i.e. non-clinical) population. It was first defined by Egan and Perry (2001) who suggested that since the clinical category of gender-identity disorder included both cross-gender behaviour and dissatisfaction with one's gender assignment, the dimension of gender contentedness should also be considered as a separate dimension of gender identity. Carver, Younger and Perry (2003) define it as 'the degree to which one is happy with one's gender assignment' (p. 95). However, there is a certain degree of ambiguity encapsulated in this definition, related to the term 'gender assignment', which requires some discussion here.

The term 'gender assignment', often used interchangeably or together with sex assignment, is usually used when discussing intersex conditions at birth, and when referring to the decision regarding the 'appropriate' gender for new-borns with physical intersex conditions (Zucker, 2002; see also Fausto-Sterling, 2000). However, there is also a wider understanding of the term as used when referring to the decision regarding

any new-born's gender, generally based upon external genitalia (Sociology Thesaurus in SocIndex database). Thus, the initial formulation of gender contentedness may be referring to the level of satisfaction with one's biological sex. Since this is not further specified or discussed in the original paper presenting the multidimensional gender-identity model (Egan & Perry, 2001), some degree of ambiguity remains. However, Perry and Pauletti (2011) later defined gender contentedness as 'satisfaction with one's gender' (p. 68), which is a slightly different definition from the original and can be considered as a very wide definition, encompassing both biological and social dimensions of gender.

Furthermore, assigned gender 'may also refer more broadly to the behaviours and traits that are expected of a particular gender by society' (Sociology Thesaurus in SocIndex database); subsequent researchers have also more clearly *defined gender contentedness as satisfaction with one's gender role, rather than biological sex* (Leaper & Brown, 2008). It can be argued, that when analysing gender contentedness in a general population of late adolescents, the focus on gender as a social category, rather than biological sex, is more relevant, since concerns with gender-role norms may be an issue for many more adolescents than concern with the biological sex assignment (even though in some cases the two forms can co-occur). In this study, therefore, *gender contentedness would refer to the degree of satisfaction with one's gender role*.

Research has shown quite consistently that gender contentedness has a moderate to weak positive relationship to gender typicality, with zero-order correlations in the pre-adolescent samples from the United States of America reported in two separate studies as .47 for boys and .30 for girls (Egan & Perry, 2001), .25 for boys and .31 for girls (Yunger, Carver, & Perry, 2004). Similarly, in China sample zero-order correlations were .25 for boys .32 for girls (Yu & Xie, 2010) and in a study in France, gender typicality and gender contentedness correlated at .25 for all sample (Jodoin & Julien, 2011). Some inter-ethnic variations were observed with regard to the strength of the relationship between the two gender-identity dimensions in the United States sample of White, Black and Hispanic children, with correlations ranging from .19 for Black to .37 for White subgroups of the sample (see Corby, Perry, & Hodges, 2007), nevertheless, the link stayed positive and significant in all cases. Though positively correlated in all previous studies, these two constructs are considered distinct dimensions of gender identity – exploratory factor analysis has shown that items from these scales load on two separate factors (Egan and Perry, 2001; Jodoin & Julien, 2011). These two dimensions also relate to adjustment in different ways (Carver, Younger, & Perry, 2003), which will be discussed in detail in chapter 5. Therefore, the initial conceptualisation of gender contentedness and gender typicality as two aspects of one underlying construct – gender compatibility – was largely abandoned in the literature on the dimensions of gender identity.

Another distinct aspect of gender identity is *felt pressure for gender conformity*. This dimension is defined as *the degree to which one feels pressured to conform to gender stereotypes* (Carver, Yunger, & Perry, 2003). The main sources of pressure identified in the model are parents, peers and self (or internalised pressure). The concept of felt pressure for gender conformity is not new in gender development literature. On the contrary, this construct has been used extensively to explain the development of gender differentiation, for example, in the gender intensification hypothesis (Hill & Lynch, 1983), or in parental influences on gender development (Fagot & Hagan, 1991).

However, the new aspect in Egan and Perry's (2001) model concerning felt pressure for gender conformity is their attempt to define this pressure as a completely independent dimension of gender identity. In contrast, Bem (1981) assumed that strong gender typicality implies strong felt pressure for gender conformity. This assumption has deeply influenced subsequent research on gender identity and gender development, since Bem's model of sex-role identity has been so widely used in psychological research for over three decades. However, with the development of cognitive theoretical perspectives on gender development and differentiation, the assumption that gender typicality is always related to felt normative pressure became extensively questioned. It has been shown that gender typicality can be related to factors other than felt pressure, such as biological characteristics (e.g. hormones) (Berenbaum & Bailey, 2003; Berenbaum & Beltz, 2011; Berenbaum, Bryk, & Beltz, 2012), modelling of gendered behaviours (Bandura & Bussey, 2004; Bussey & Bandura, 1999) or the sex-segregated nature of activities from childhood (Maccoby, 1988, 1990, 1998, 2000a, 2002). Thus, Egan and Perry (2001) argue, that it is very important to assess gender typicality and felt pressure for gender conformity as separate factors.

The distinct nature of felt normative pressure from gender typicality, and from gender contentedness, has been supported by the results of exploratory factor analysis in the study by Jodoin and Julien (2011), where items for felt pressure loaded on a separate factor. However, with regard to the links between felt pressure and other dimensions of gender identity there is not much consistency in previous empirical studies. The findings diverge into three groups. The first group of studies did not find any statistically significant correlations between felt pressure and two other dimensions of gender identity – gender typicality and gender contentedness (Carver, Yunger, & Perry, 2003; Egan & Perry, 2001; Yu & Xie, 2010). The second group of studies found that felt pressure was significantly correlated to gender contentedness, but not gender typicality, and the strength between felt pressure and gender contentedness was reported as .20 (Yunger, Carver, & Perry, 2004), .21 (for girls only, pressure from peers only, Smith & Leaper, 2006) and .22 to .34 in different ethnic groups in the United States (Corby, Perry, & Hodges, 2007). Yet another study reporting on the correlations under discussion found that felt pressure was positively correlated to both – gender typicality at .34 and gender contentedness at .48 (Jodoin & Julien, 2011).

Thus, the links between felt pressure and other dimensions of gender identity need further clarification, and the inconsistent findings need theoretical explanation, which is absent at this point. There seems to be more consistency that felt pressure is not related to gender typicality, which is in line with the contention that gender typicality is not simply or consistently the result of felt normative pressure, but can be linked to many other developmental factors. The findings regarding the links between felt pressure and gender contentedness are less consistent – there is a tendency for a weak to moderate positive link, however, not all studies support this finding. It should also be noted that very few studies have attempted to separate the effects of felt pressure from different sources (parents, peers, self). Moreover, felt pressure from other sources, relevant for pre-adolescents and adolescents, for example, their teachers, has not been assessed in previous studies.

To generalise, multidimensional conceptualisation of gender identity offers a new approach to gender identity in psychological research. Most notably, the multidimensional model suggests that there is no one higher-order construct that could represent gender identity, but rather there are multiple dimensions that cover distinct aspects of gender identity. Moreover, the model departs from the tradition in the psychological literature to define gender identity as something based on a set of known attributes, defined as either masculine or feminine by the researchers, and suggests instead that a person's thoughts and feelings with regard to their gender category, and not the particular set of gendered attributes themselves, is what constitutes gender identity.

However, the multidimensional model appears to have several conceptual and empirical challenges, which need more specification and clarification. Particularly, the inconsistencies arise when naming other possible dimensions of gender identity, besides the three ones discussed above. The structure of gender identity seems not to be limited to the three components, however, data is scarce and there is little agreement on what should constitute the other possible dimensions of gender identity. Potential additional dimensions could be centrality of the gender category in a person's identity (Bussey, 2011; Lurye et al., 2008; Tobin et al., 2010) or similarly gender schematicity, defined as a tendency to perceive the environment and the self through gendered lenses, and interpret the world using gender category (Bem, 1981). Another additional dimension could be the construct named gender oppression by Perry (2009, personal communication). The results of Perry and his colleagues' work indicate some variation in the structure of gender-identity dimensions and one of the dimensions included in the revised unpublished version of their questionnaire (Revised Gender Identity Scales) is gender oppression. The gender oppression scale covered dissatisfaction, annoyance and feelings of unfairness that some things or activities were restricted or expected of a person only due to his or her gender.

Particularly strong inconsistencies arise with respect to the role of gender attitudes and gender stereotypes – whether these attitudes and stereotypes present one more dimension of gender identity or, instead, are a separate, though closely related, theoretical construct. The first position is supported by Egan and Perry (2001), who included *attitudes towards gender groups* in the first formulation of their multidimensional gender-identity model. However, this broad construct was not empirically tested in the multidimensional gender-identity model. Instead, it was replaced with a more specific dimension of gender-related attitudes – *same-sex favouritism*, which is built upon the well-studied phenomenon of intergroup bias. Egan and Perry (2001) define same-sex favouritism as 'the sentiment that one's own sex is superior to the other' (p. 454). The inclusion of this dimension in the multidimensional model was based on earlier findings that same-sex bias was present among children and pre-adolescents, and on the assumption that it could be linked to adjustment indicators, such as self-esteem or peer acceptance. Some studies on multidimensional gender identity included same-sex favouritism as one of the dimensions in the model and found this dimension to be adequately reliable (Cronbach's alpha equals or is higher than .70 as reported by Bos & Sandfort, 2010; Carver, Yunger, & Perry, 2003; Egan & Perry, 2001; Yu & Xie, 2010).

Despite some initial attempts to integrate and validate the dimension of same-sex favouritism in the multidimensional model of gender identity, there are a number of conceptual and empirical inconsistencies with regard to this dimension. The first and most important consideration relates to the theoretical disparities between the concepts of intergroup bias and gender identity. Intergroup bias, as defined by Tajfel and Turner (1979), first and foremost refers to in-group perceptions, that is, perceptions at a group level. However, the initial formulation of what gender identity generally is, based upon the multidimensional model, stressed self-perceptions, rather than perceptions on a group level. It can thus be argued that the construct of *intergroup bias lacks conceptual congruity with the concept of gender identity* as a whole and as it was formulated originally by the authors of a multidimensional gender-identity model. Moreover, the factor structure of this dimension was not confirmed in the French study (Jodoin & Julien, 2011), which was the only one besides the original Egan and Perry (2001) study to report the results of factor analysis. The authors of the French study reported that the original single dimension loaded on two factors in the French version of the same-sex favouritism scale and neither of the factors had adequate internal consistency (Cronbach's alphas were .44 and .30).

Based on these conceptual and empirical considerations, serious doubts can be raised as to whether same-sex favouritism should be considered as a dimension of gender identity at all. It should also be noted that the dimension of same-sex favouritism has not been included in several studies on the relationship between gender identity and psychosocial adjustment (Corby, Perry, & Hodges, 2007; Smith & Leaper, 2006; Yunger, Carver, & Perry, 2004) due to inadequate empirical support for the existence of such links in the case of same-sex favouritism in the initial empirical validation studies (i.e. Carver, Yunger, & Perry, 2003; Egan & Perry, 2001, the finding was further replicated by Bos & Sandfort, 2010; and Yu & Xie, 2010). It is, therefore, important, that alternative conceptualisations of the relationship of attitudes towards gender groups, which were originally proposed as the last dimension of the multidimensional gender-identity model, and gender identity be proposed and considered. There is a need to reconsider and specify which particular aspects of attitudes towards gender groups are important when talking about gender identity and its links to psychological functioning. Moreover, it is important to reconsider whether attitudes towards gender groups form a separate dimension of gender identity, or are a separate, even though related, psychological construct. This issue will be further addressed in the next subsection of this chapter.

The first attempt to conceptually review the multidimensional gender-identity model and integrate its concepts into the wider context of literature on gender development was the gender self-socialisation model, presented by Tobin et al. in 2010. This model and its proposals for a multidimensional understanding of gender identity are discussed in the following chapter.

3.3 Gender identity and gender stereotypes as related elements of gender cognition

As argued in the previous chapter, there are both conceptual and empirical inconsistencies regarding the inclusion of attitudes towards gender groups among the

dimensions of gender identity. It can nevertheless be noted that attitudes towards gender groups and particularly, the level of stereotypicality of such attitudes (otherwise referred to as adherence to gender stereotypes), are an important part of studying gender-related phenomena, including gendered self-perceptions and their links to psychological functioning. Gender stereotypes have been shown to affect different self-judgements and behaviours and these effects are relevant both situationally, for example, through such well-documented phenomena as stereotype threat (Pronin, Steele, & Ross, 2004; Steele, 1998), and in a long-term, developmental perspective, for example, through the process of gender-role socialisation (Hill & Lynch, 1993; Tenenbaum & Leaper, 2002). As such, gender-related stereotypes should be included in the study on gender identity and its links to psychological functioning. However, finding conceptually and empirically consistent ways to do this in a psychological study is complicated. This difficulty can be illustrated by the existence of separate research publications on gender identity and gender stereotypes, and by disparate findings in these publications that are difficult to explain using a coherent conceptual model (Tobin et al., 2010). It is therefore very important to make a conceptual distinction between the concepts of gender identity and gender stereotypes.

Gender stereotypes are defined as social-conventional beliefs regarding the characteristics associated with gender (Alfieri, Ruble, & Higgins, 1996). More narrowly, they are beliefs about the characteristics or attributes of men and women, boys and girls, usually described by differences between these groups (Halim & Ruble, 2010). When operationalised, this construct usually lies on a dimension with a stereotypical (or rigid) understanding of gender on one pole, and a flexible understanding of gender on the other. Thus, gender stereotypes indicate rigidity versus flexibility of gender attitudes, otherwise termed as gender traditionality versus egalitarianism. Stereotypical understanding of gender is based on the perspective of gender differences, while flexibility and egalitarianism are related to a gender similarities perspective (Hyde, 2005).

In contrast to the concept of gender identity, the definition of gender stereotypes does not include self-perceptions or self-judgements with regard to gender. Gender stereotypes are defined as mental associations between an abstracted, generalised category of gender and particular attributes (traits, behaviours, preferences, appearances, etc.) (Tobin et al., 2010). In contrast, gender identity consists of mental associations between the category of gender and the category of self (Tobin et al., 2010). It can be assumed that gender stereotypes are closely related to gendered self-judgements as long as two mental links co-exist: the one between the self and the gender category (i.e. the individual sees himself or herself as a member of a particular gender group and identifies himself or herself as a member of it); and the one between gender and various attributes (i.e. traits, behaviours, etc.) are seen as differentiated by gender. Thus, knowledge of membership in a gender category (Egan & Perry, 2001), or gender constancy (Kohlberg, 1966), may be considered a basis for a continuous relationship between gender identity and gender stereotypes. Thus, it can be claimed that gender stereotypes and gender identity are distinct constructs, but become closely intertwined in the context of gendered developmental processes.

Gender stereotypes can be formulated in two different ways: as descriptive or prescriptive statements (Heilman, 2001). Expectations about the actual characteristics of gender group members are called descriptive stereotypes, examples of which are the beliefs that boys do not cry and that girls take more care of their appearances than boys. Expectations surrounding how gender groups should behave like are called prescriptive stereotypes, for example, the beliefs that boys should not cry and girls should take more care of their appearances than boys. Although descriptive and prescriptive stereotypes generally cover the same characteristics, there may be exceptions with regard to some socially undesirable characteristics (Kark & Eagly, 2010). Though arguably both prescriptive and descriptive gender stereotypes similarly reflect and reproduce the same sociocultural gender norms, prescriptive ones are considered to be more closely linked to behaviour (Thompson et al., 1992).

Prescriptive stereotypes are direct normative statements and, as such, they hold some characteristics of gender ideologies. Based on a general concept of ideology, as reviewed by Hamilton (1987), gender ideology can be defined as a system of collectively held normative beliefs and attitudes that support, justify and maintain a particular pattern of gendered social relationships, arrangements and behaviours. As with gender stereotypes, gender ideologies can have a traditional patriarchal orientation, or be more egalitarian or feminist. Gender ideologies can be expected to be even more related to certain ways of behaviour than prescriptive gender stereotypes, since ideology is a system that supports, justifies or maintains certain patterns of behaviour. Even though the distinction between gender stereotypes and gender ideologies is not a simple one, in the literature the meaning of these two concepts is often very similar. Gender ideologies are frequently defined as patterns or clusters of intercorrelated stereotypes (Perry & Pauletti, 2011; Tobin et al., 2010) that regulate or serve as normative rules in certain domains (e.g. relationships, achievements), or define certain gendered identities (e.g. femininity and masculinity).

Based upon the theoretical model proposed by Tobin et al. (2010), gender-identity dimensions and gender stereotypes do not operate separately. Gender identity and gender stereotypes are conceptualised as *elements of gender cognition* and propose a concept of gender cognitive signatures, defined as patterns of gender identity and stereotypes. According to this concept, gender identity interacts with gender stereotypes in reciprocal directions with the driving force behind these interactions being the need for cognitive consistency or cognitive balance. For example, the more gender typical a person feels ('I am a typical boy'), the more motivation he or she will have to adopt his or her gender stereotypes ('Boys are assertive, therefore, I should be assertive, too'). However, high gender typicality ('I am a typical girl') can also serve as a motivation to project self attributes onto his or her gender group ('I am tidy, therefore, girls must be tidy'), thus resulting in stereotype construction. Such conceptualisation allows for individual differences with regard to gender-related phenomena both between and within gender groups. For example, two persons can feel equally typical and content with regard to their gender, but hold different positions regarding gender stereotypes or even have differing sets of stereotypes, and this can be related to different outcomes.

Tobin et al. (2010) observe that if only one of the two constructs is measured, the effects of the other construct remain implicit and unaccounted for in empirical analysis and theoretical interpretations of the phenomena under study. Therefore, findings using just one of the constructs may be inconsistent and interpretations may include misattributions of effects to one of the constructs when they could, at least partially, be attributed to the operation of the other construct. These considerations can find support in previous empirical studies, for example, inter-ethnic variations in correlations between gender-identity dimensions between White, Black and Hispanic children in the United States found by Corby, Perry and Hodges (2007) could be attributed to the differences in gender stereotypes among ethnic groups, however, this explanation was not tested because gender stereotypes were not measured in the study.

In order to avoid such pitfalls, in this study, and to explain gender-related phenomena more fully, the approach suggested by Tobin et al. (2010) is applied, according to which gender identity and gender stereotypes are different, but closely related theoretical constructs, both key elements of gender cognition. In order to avoid misattribution of the effects of gender stereotypes to gender-identity dimensions and vice versa, analysis of links between gender identity and psychological-functioning indicators was carried out while controlling for gender stereotype effects on the outcome variables. In the text, whenever the elements of gender cognition are referred to it is gender-identity dimensions and gender stereotypes that are in question.

4. NORMATIVE DEVELOPMENTS AND INFLUENCES ON GENDER IDENTITY IN ADOLESCENCE

Gender identity development and exploration of gendered roles, behaviours and social practices is considered to be one of the central parts of normative developmental processes in adolescence (Clemans et al., 2010). Adolescence is considered to be an especially sensitive period for issues related to identity formation (Erikson, 1993, 1994). In fact, adolescence is traditionally defined through the phenomenon of identity crisis, resulting either in identity consolidation or confusion. Adolescence brings changes on various levels (biological, cognitive, environmental, etc.), which, in turn, require a person to revise childhood identifications and create a qualitatively new form of identity, which ensures a sense of personal continuity and uniqueness. This process should result in an identity, which provides a comfortable sense of self, congruent with one's bodily self-perceptions and abilities and needs, and one which sustains a sense of direction through ideological commitments, as well as ensuring recognition of this self by significant others and society at large (Erikson, 1994). Gender identity is part of this wider fundamental process of identity formation that adolescents undergo.

Although universal, identity crisis is a complex phenomenon without clear-cut margins for the beginning and the end. There also are large individual differences among adolescents with regard to pubertal maturation (Kroger, 2006). Therefore, it is difficult to define the exact time frame of adolescence. Generally, adolescence is defined as starting at puberty, from approximately 11 years of age (Kroger, 2006; Lempers & Clark-Lempers, 1992). More inconsistencies arise with regard to the end of adolescence, which should occur with major identity commitments (Marcia, 2002). However, identity commitments might not occur until a person's mid-twenties or later (e.g. Arnett, 2000). Thus, some authors define the end of adolescence as the beginning of a person's twenties (e.g. Kroger, 2006), while others consider the upper limit to be approximately 18–19 years of age (e.g. Lempers & Clark-Lempers, 1992; Seiffge-Krenke, Aunola, & Nurmi, 2009). At this age, persons in the majority of the western societies have graduated from high school and are about to face significant life changes on different levels of environment, activities, living conditions, etc. In this study, it was decided that the lower age limit for the end of adolescence would be adhered to due to the significant differences in situation between those who still attend high school and those who have already graduated. There is also a widely accepted periodisation of adolescence into early, middle (called 'adolescence proper' by Kroger (2004)) and late adolescence. Early adolescence is defined as the period between 11 and 13 years of age, middle adolescence – between 14 and 16 years of age and late adolescence between 17 and 19 years of age (Lempers & Clark-Lempers, 1992), though there is some variation in the age-frames for the periodisation of adolescence (e.g. compare with Kroger, 2006; Pettitt, 2004).

In this chapter, the following three aspects of gender identity that are important in adolescence and in this study are discussed briefly: the concept of gender self-socialisation, gender identity as a relational construct and gender rigidity–flexibility

dynamics. While discussing these points the theoretical basis for this study will continue to be presented.

4.1 Gender identity as part of gender self-socialisation

The multidimensional model of gender identity, proposed by Egan and Perry (2001), and the model explaining the interactions between gender identity and gender stereotypes, proposed by Tobin et al. (2010), are both constructed on synthesised claims of cognitive theories of gender. This set of theories is among the most developed and widely tested theories of gender in psychology that has a long tradition of quantitative empirical studies on gender, which contrasts with some other accounts on gender in psychology and related fields (e.g. psychoanalytic and social constructionist theories are mostly applied with qualitative approaches). Cognitive theories of gender are divided into environmental and constructivist theories (Blakemore, Berenbaum, & Liben, 2009). Although there are important differences between the two perspectives, they share a strong emphasis on the self-regulatory processes involved in gender formation. An important role in gender-related development is assigned to the individual as an agent who is not simply socialised into gender by external social forces but is also actively involved himself or herself in constructing and regulating these socialisation processes, which are accordingly termed gender self-socialisation (Tobin et al., 2010). Gender identity is part of this gender self-socialisation process in both perspectives; therefore, they are both presented in brief below.

Gender constructivism is an approach that sees an individual as actively construing the personal meaning of gender in his or her interaction with the environment and through personal experiences and behaviours (Liben & Bigler, 2002). This perspective originates in the classical cognitive constructivist theories (particularly, the Piagetian theory), which emphasise that over the course of their development individuals construct their own knowledge by interacting with their environment, and this active engagement on the part of the individual is a necessary process for developmental advances to take place (Blakemore et al., 2009). Applied to the analysis of gender, this idea means that individuals develop their gender concepts and schemas actively and self-initiatively. The basic motivating force behind this active engagement with the environment in constructing gender schemas is gender identity, or knowledge of a membership in a gender category (Martin & Halverson, 1981). The consequences of children's realisation of their membership of a particular gender group include 'increased motivation to be similar to other members of their group, references for members of their own group, selective attention to and memory for information relevant to their own sex, and increased interest in activities relevant to their own sex' (Martin & Ruble, 2004, p. 67). Thus, from a gender constructivist perspective, gender identity is seen the main motivating factor in the process of gender self-socialisation. Identity motivates one to increase matching between oneself and one's gender category; this matching can be achieved in two ways: by adhering to gender stereotypes and adopting relevant gender-related attributes to oneself or by attributing one's own qualities and characteristics to the relevant gender category (dual pathway model proposed by Liben and Bigler, 2002).

The most advanced among gender environmental perspectives is social cognitive gender theory, formulated in Bandura and Bussey (2004), Bussey and Bandura (1999) and Bussey (2011). According to this perspective, infants develop a conception of self, including gender identity, through guided activities that allow mastering of tasks, which produce effects and develop a sense of personal agency (Bussey, 2011). High gender differentiation and large gender differences in social consequences for certain behaviours produce gender identity that works as a strong basis for self-regulation. Initially based on social sanctions, gendered self-regulation becomes increasingly based on anticipated self-sanctions and self-efficacy beliefs (Bussey, 2011). Thus, social cognitive theory also conceptualises gender identity as an important element of gendered self-regulation, however, in this perspective gender identity develops not primarily as an intra-psychic process determined by advances in cognitive abilities of a child, but instead as a contextually or environmentally determined property, shaped by different socialising agents. In the long run, this externally determined regulation becomes part of an individual's internal self-regulation (Bussey, 2011). On the one hand, social cognitivists emphasise the effects of family, media, peers, teachers and other socialisation agents on the development of gender identity. While on the other hand, they stress the agency of an individual to self-regulate and self-motivate, for example, by choosing particular environments with gender norms that would allow them to sustain the sense of self-efficacy and positive self-reinforcement. In general, this perspective puts more emphasis on gender identity as a social–relational construct.

4.2 Gender identity as a relational construct

Many authors have emphasised that relationships with others are central to the development of self-definition or personal identity (Chodorow, 1989; Gilligan, 1982; Kroger, 1997; Lyons, 1983; Marcia, 1993). As Patterson, Sochting and Marcia note, 'interpersonal relatedness is central to the process of identity formation, and therefore to the meaning of identity itself. ... [I]dentity emerges as a commitment to a set of values and ways of being in relation to important others' (1992, cf. Kroger, 1997, p. 21–22). The link between the dimensions of relatedness to others and identity development is reciprocal. For example, attachment style is considered a factor that predicts the success of identity development processes, but achieved personal identity is also viewed as necessary for an individual's capacity to build intimate relationships with others (Årseth, Kroger, Martinussen, & Marcia, 2009).

Moreover, gender, as a concept, is also defined as certain patterns of relations across different levels of social functioning (Connell, 2009), thus, gender is a form of relations. Unsurprisingly, relational processes have also been a focus in the psychological literature on the formation and functioning of gender identity. Traditionally, much attention and research efforts have concentrated on the role of family relationships, particularly on parental influences. In the context of parent–child relationships, Blakemore et al. (2009) review four mechanisms that shape children's gendered cognitions, behaviours and self-concepts: 1) channelling or shaping children's interests, appearances, activities and choices in line with the dominant concepts of femininity and masculinity; 2) differential

treatment of sons and daughters by reinforcement, for example, emotionality and interpersonal orientation in girls and restrictive emotionality and disposition towards risk-taking behaviour in boys; 3) direct instruction on gender roles, for example, teaching their children certain gender-related activities, tasks and skills; and 4) modelling gender by behaving in gendered ways in front of their children. The effects of parental influence on children's gender identity and related properties are acknowledged as very powerful, however, the extent and magnitude of these effects have been reconsidered in recent years (Leaper, 2011). Some scholars contend that there is more similarity than difference in the way parents treat their children (e.g. Lytton & Romney, 1991) and propose transactional models to conceptualise child–parent interactions rather than a unidirectional parent-affects-child path (Maccoby, 2000b)

Another major relational context that affects child and adolescent gender identity and related properties is peers. Relations with peers are considered to be of growing and key importance for development during adolescence (Pettitt, 2004), however, a major significance of peer context in gender socialisation has been acknowledged starting with early childhood (Maccoby, 1988, 1990b, 1998, 2002). The major factor of peer gender socialisation in childhood is a strong preference for same-sex peer groups or childhood gender segregation (Maccoby, 1988). The activities in these same-sex groups differ substantially between girls' and boys' groups and are highly stereotypical (Blakemore et al., 2009). Since children spend a lot of time in same-sex groups and this segregation continues for many years, boys and girls are socialised in different ways, since the activities, levels of hierarchy and methods of interaction differ by gender, and because children reinforce peers who act in gender-stereotypical ways, and punish those whose behaviour is not in line with gender stereotypes (Blakemore et al., 2009). The time spent with same-sex peers predicts the sex-stereotypicality of interests and activities of the child (Blakemore et al., 2009).

In adolescence, certain important gender-related transformations occur in the peer context, which bring new peer effects in the gendered functioning of adolescents. Firstly, peer interactions become less sex-segregated compared to childhood (Maccoby, 1998), peer groups increasingly turn to mixed-sex groups, and the number of cross-sex friendships increases. These changes allow for an enhancement of skills, interests and abilities, that previously were limited and suppressed through strict same-sex-segregation (Blakemore et al., 2009). Secondly, dating begins, and romantic and sexual experiences occur, which further expand the adolescent's repertoire of behaviours, including gender roles, and bring adolescents closer to adult roles and behaviours. Thirdly, new gendered patterns of peer aggression emerge, particularly, sexual harassment, dating violence and homophobic bullying (McMaster, Connolly, Pepler, & Craig, 2002; Pepler, Craig, Connolly, Yulie, McMaster, & Jiang , 2006; Petersen & Hyde, 2009; Poteat & Espelage, 2005). Some of these gendered patterns of aggression, for example, sexist or homophobic bullying, and sexual harassment are among the measures of severe peer repercussions that can be faced by adolescents who do not conform to gender norms. Other forms of peer pressure to conform to gender norms include resistance to befriending peers with gender atypical behaviour, and dislike and marginalisation of those who act in non-normative ways (Lee & Troop-Gordon, 2011).

Apart from family and peers, agents of gender socialisation also include schools, media, religions and other complex social institutions (Leaper, 2011; Wood & Eagly, 2002). Many of the gendered effects of these institutions are also channelled through the path of interpersonal relations – in interactions with family members, peers, teachers and other significant figures.

4.3 Gender rigidity versus flexibility debate

The onset of puberty, as previously mentioned, marks the beginning of adolescence, and it also is one of the key factors used to explain gender-related developments in adolescence. Increasing sex-differentiation of the body presents a need for an adolescent to revise his or her bodily self-perceptions and to find a new sense of self that both incorporates these biological changes and ensures a sense of continuity. Existing gender ideologies may be helpful in making sense of the biological changes that adolescents face, and may offer adolescents an identity that integrates these complex changes and allows for an easier transition through them. In this way, the biological aspects of adolescence may foster increased interest in and attention to the information, models and ideologies related to gender.

This reasoning is in line with the *gender intensification hypothesis* (Hill & Lynch, 1983) according to which pubertal changes lead not only to biological sexual maturation but also facilitate development and internalisation of gendered adult social roles. On the one hand, gender identity and the need for cognitive consistency may be the motivating force behind this process. While on the other hand, physical growth and changes on the neuroendocrine level are accompanied by psychological and behavioural changes that in turn relate to changes in the contexts where adolescents function (Susman & Dorn, 2009). External perceptions of an adolescent, and their relationship with others that is, parents, teachers, peers, other socialising agents, change in adolescence. Some of these changes have salient gendered aspects and are linked to increased normative gender regulation. Adolescents experience strong gender-stereotyping from both socialisation agents and the self, which encourages adolescents to endorse attitudes, self-perceptions and behaviours that are increasingly gender-typed (Hill & Lynch, 1983).

Though gender intensification is still considered to be one of the main conceptual frameworks in the studying of gender in adolescence (Clemans et al., 2010), a competing hypothesis proposed by cognitive gender theorists predicts increased flexibility of gender-related constructs (less adherence to gender stereotypical attitudes, self-perceptions and behaviours) in adolescence due to advances in cognitive functioning (Galambos et al., 2009). Characteristic cognitive changes in adolescence include increased processing speed, greater processing efficiency and capacity, ability to inhibit a response, development of formal reasoning skills, metacognitive skills, ability to think about combined or interactive effects of numerous factors and inquiry skills (Kuhn, 2009). Related to these is the ability to reach post-conventional moral reasoning (Kohlberg & Hersh, 1977) and the phenomenon of the imaginary audience, or specific adolescent egocentrism (Elkind, 1967). A higher level of cognitive skills allows for more nuanced and complex self-perceptions and self-concepts – adolescents can see and

evaluate themselves in comparison with others and with multiple social roles (Clemans et al., 2010). Multiple self-concepts related to different roles become possible and can be integrated into a coherent, but flexible, sense of self (Clemans et al., 2010), which would also predict higher flexibility in gendered self-perceptions and less adherence to gender stereotypes and stereotypical roles.

Empirical explorations of gender intensification versus gender flexibility hypotheses in adolescence generated a dynamic and complex picture. Some studies provided support for the hypothesis that certain aspects of gender did intensify in adolescence or the onset of puberty. Pettitt's (2004) study of early, middle and late adolescents showed that with advances in pubertal status, adolescents' perceptions of peer messages on gender-related content did become more stereotypical, that is, peers were increasingly perceived as valuing mathematics for boys and social domain for girls. However, the same study also concluded that perceptions of peer gender stereotypes were more consistent with the gender intensification hypothesis than perceptions of peer messages about individual adolescents. Thus, gender intensification may be true for some gender-related factors (e.g. gender stereotypes) but not for others (e.g. gendered expectations with regard to particular individuals). An earlier longitudinal study by Galambos, Almeida and Petersen (1990) has also provided some support for gender intensification across early adolescence – boys increasingly self-identified with masculine traits (but this tendency was not observed with femininity for girls), and the gap between gender-role attitudes increased with age – girls increasingly approved of gender equality, whereas boys became less approving. These findings indicate that adolescent boys might be experiencing higher gender intensification than girls, which is in line with the findings that boys generally feel more social pressure to adhere to gender norms (e.g. Egan & Perry, 2001), while girls are generally more flexible in their gender-role attitudes (e.g. Jackson & Tein, 1998) and activities (e.g. McHale, Kim, Whiteman, & Crouter, 2004).

On the other hand, Priess et al. (2009) did not find support for the gender intensification hypothesis in early to middle adolescence. Measuring self-attributions of stereotyped gender-related traits, the authors found that girls did not increase in self-attributed femininity (expressiveness) nor did boys in masculinity (instrumentality). Moreover, in a cross-sectional study by Katz and Ksansnak (1994), which analysed gender flexibility in middle childhood to late adolescence, measuring both gender attitudes towards self and gender atypical others, it was found that there was a linear increase in both aspects of gender flexibility, which is in line with a cognitive approach to gender development but not with the gender intensification hypothesis. Similarly, a linear increase in gender flexibility from childhood to early adolescence was found by Serbin, Powlishta and Gulko (1993).

Furthermore, a more recent longitudinal study by Crouter, Whiteman, McHale and Osgood (2007) found no one longitudinal pattern that would reveal the dynamics of gender flexibility versus traditionality. Analysing gender attitude development of children and adolescents from 7 to 19 years of age, these authors found important individual (i.e. sex, age, birth order) and contextual (i.e. parents' gender attitudes, sibling sex) characteristics that predicted patterns of change. Although most participants

declined in gender attitude traditionality, some became more traditional, particularly first-born boys with brothers and traditional parents. A child's individual gender history, for example, his or her adherence to sex-typed activities in middle childhood (McHale et al., 2004) also predicted later gender inflexibility.

To generalise, gender intensification tendencies seem not to have a linear progression over the course of adolescence. Gender stereotypicality or rigidity may be strongest in childhood (suggested peak of rigidity is five to seven years of age, Martin and Ruble, 2004). Over the course of adolescence, stereotypicality is thought to reduce, bringing more flexible gender-related attitudes. However, there are opposing views, according to which gender intensifies in early adolescence with pubertal changes (Clemans et al., 2010), or in the period of middle to late adolescence (Alfieri et al., 1996). There are also indications that these pathways differ according to individual and contextual characteristics (Crouter et al., 2007; McHale, Kim, Whiteman, & Crouter, 2004) and that the levels of gender flexibility versus rigidity depend on the domain of flexibility measured (attitudes about others, attitudes about self, or behaviours) (Bartini, 2006; Katz & Ksansnak, 1994; Pettitt, 2004) and response format (forced versus flexible format) (Katz & Ksansnak, 1994; Signorella, Bogler, & Liben, 1993) used by researchers.

Despite of large inconsistencies and gaps in the literature on gender in adolescence, gender identity is considered to be one of the central normative developmental milestones and is a part of larger processes of personal identity formation in adolescence. Self-perceptions and personal identity have important links to different aspects of psychosocial functioning in adolescence (Nurmi, 1999). It is therefore important to also study gender identity in the context of adolescent psychological functioning. Since previous studies in the field mostly focused on the periods of childhood and early adolescence (Clemans et al., 2010; Ruble et al., 2006; Tobin et al., 2010), large gaps exist in the literature with regard to middle and late adolescent (14–19 years of age) gender identity and its links to important indicators of psychological difficulties and well-being. In the following chapter, the main available findings about the relationship between gender identity and psychological functioning are reviewed, particularly, certain difficulties and aspects of well-being that are relevant in the formulation of hypotheses about respective links in middle to late adolescence.

5. LINKS BETWEEN GENDER IDENTITY AND PSYCHOLOGICAL DIFFICULTIES AND WELL-BEING

5.1 Indicators of psychological difficulties and well-being in adolescence

As defined in the introduction, this study focuses on a given set of psychological difficulties and aspects of well-being that are important in adolescence. According to a common contemporary understanding, it is necessary to consider both difficulties and well-being in order to achieve a more complete picture of the psychological functioning of a person (Herman & Jané-Llopis, 2005; Korkeila, 2000; Westerhof & Keyes, 2010). These two dimensions are related, but distinct – a person may experience no psychological difficulties, but it does not ensure that he or she exhibits a high well-being.

Complete and final distinction between psychological difficulties and well-being may be problematic (e.g. see Gallagher, Lopez, & Preacher, 2009), therefore, it is important to combine these different components of psychological functioning to form a set of the most relevant indicators for a particular study. Usually a certain number of indicators, indices or dimensions of difficulties and well-being are selected to be included in such a study. However, the set of indicators used varies quite considerably across psychological studies, even within a single field of psychology, for example, developmental studies. The main criteria for selecting different indices/indicators or dimensions of psychological functioning for a particular study can be the age period under study or the field of interest of the researcher. For example, the indicators may differ for children versus adults, for children from the general population versus children with disabilities, in research on victimisation versus studies of obesity, etc. Thus, in each study, it is important to select the most relevant and optimal set of indicators.

In our study, the selection of particular indicators of psychological difficulties and well-being was based on the three following principles: 1) use a balanced number of indicators of psychological difficulties and well-being; 2) theoretical validity, that is, the existence of a theoretical hypothesis about the link between gender identity and a particular indicator of psychological functioning, or the existence of an etiological model regarding a particular difficulty or aspect of well-being that includes some aspects of gender identity; and 3) prioritise indicators recommended in the literature as the most developmentally relevant for the period of adolescence.

One of the traditional indicators of psychological difficulties is depressive symptoms. Theoretical models explaining individual differences in depressive symptoms, apart from a variety of biological, cognitive and social factors, also include a group of factors related to gender socialisation and gender identity (Aubé, Fichman, Saltaris, & Koestner, 2000; Hyde, Mezulis, & Abramson, 2008; Parker & Brotchie, 2010; Slater, Guthrie, & Boyd, 2001; Wichstrøm, 1999). These models are proposed to explain a widely established gender difference regarding the level of depression (Ge, Conger, & Elder, 2001; Hankin et al., 1998; Nolen-Hoeksema & Girgus, 1994; Priess, Lindberg,

& Hyde, 2009), and the gender-related variation in clusters of depressive symptoms (Olsson & Von Knorring, 1997). Unsurprisingly, the most common indicator of psychological functioning used in research on gender-related constructs is depressive symptoms, both in recent (e.g. Theran, 2009; Impett, Henson, Breines, Schooler, & Tolman, 2011; Tolman et al., 2006) and in classical studies (e.g. see the meta-analyses by Whitley, 1983, 1985). Depression measures used in the general population of children and adolescents assess subclinical levels of negative affect, low positive affect, somatic complaints and interpersonal disturbances (Barkmann, Erhart, Schulte-Markwort, & the BELLA Group, 2009). Depressive symptoms are a component of a wider cluster of emotional (or internalising) difficulties.

An individual's social connectedness and perceived social support form another major aspect of psychological functioning (Korkeila, 2000). Given the developmental significance of peer relations in adolescence, relationship indicators are among those recommended in studies of child and adolescent psychological functioning (Herman, Moodie, & Shekhar, 2005). These measures are of particular importance in studies of adolescent gender identity, since, as discussed in Chapter 4.2, gender identity is to a large extent a relational construct. Those adolescents who do not conform to gender norms, face resistance to befriend, and dislike and marginalisation from peers (Lee & Troop-Gordon, 2011), and in extreme cases become victims of peer bullying and harassment (Poteat & Espelage, 2005).

A subjective indicator of the difficulties in the interpersonal sphere is loneliness. Many consider loneliness a particularly important aspect of the adolescent experience (Hawker & Boulton, 2000; Juvonen, Nishina, & Graham, 2000; Marcoen, Goossens, & Caes, 1987) and it is often included in the studies on adolescent psychological functioning. Loneliness is related to depressive symptoms (Brage & Meredith, 1994) and some authors attribute it to the same group of internalising difficulties (Prinstein, Boergers, & Vernberg, 2001). Loneliness occurs when a person's expectations about interpersonal relations are not met in his or her social environment (Marcoen et al., 1987). Loneliness is positively related to one's lack of integration in the social environment, and negatively related to a number of intimate friends, but positively related to recent arguments with same-sex friends (Marcoen et al., 1987).

Externalising difficulties, such as delinquency or aggressive behaviour, are also considered traditional indicators of child and adolescent psychological functioning (Herman et al., 2005). However, they are rarely used in studies on gender-related aspects of psychological functioning. In studies on gender identity, they are sometimes included for the purpose of comparison in relation to internalising difficulties (e.g. Egan & Perry, 2001). Nevertheless, there is a position that certain aspects of gender identity, in particular masculinity, are related to externalising difficulties (Cohn, Seibert, & Zeichner, 2009; Cohn & Zeichner, 2006): substance abuse (Williams & Ricciardelli, 1999) and other health risk behaviours, including alcohol abuse, smoking and physical fighting (Mahalik, Burns, & Syzdek, 2007); with a higher adherence to traditional gender stereotypes being related to externalising difficulties in men (Huselid & Cooper, 1994).

It has previously been observed that studies on the links between gender identity aspects and psychological functioning tend to focus on difficulties (Mercurio & Landry,

2008). Similar tendency can be observed in many earlier studies focusing on the relationship between gender identity and psychological functioning (Whitley, 1985). Mercurio and Landry (2008) note that research on the links between gender identity and gender-related factors should include more measures of well-being. According to the World Health Organization (Herman et al., 2005), indicators of well-being for children and adolescents are not well established, but recommended indicators at the individual level include those that refer to a strong sense of self and self-worth.

Measures of self-esteem are the most common indicators of psychological functioning in both classical studies on gender-related constructs (e.g. the meta-analysis by Whitley, 1983) and more recent studies on gender identity (e.g. Bos & Sandfort, 2010; Carver, Yunger, & Perry, 2003; Corby, Perry, & Hodges, 2007; Egan & Perry, 2001; Yunger, Carver, & Perry, 2004). In addition to self-esteem (a common indicator of eudemonic well-being), Mercurio and Landry (2008) encourage the inclusion of measures of hedonic well-being, such as satisfaction with life. Furthermore, Kreiger and Dumka (2006) recommend including measures of self-efficacy in studies on gender-related constructs. Bussey (2011) also stressed the role of self-efficacy in the gender-related regulation of a person.

Based on these considerations, a battery of indicators was formed for this study, which covered the important aspects of adolescent psychological functioning. The indicators of difficulties include depressive symptoms, loneliness and delinquency, and the indicators of well-being include self-esteem, self-efficacy and satisfaction with important life domains.

5.2 Classical hypotheses

Even though it has been stressed that gender identity had a close connection to psychological difficulties and well-being, the hypotheses about the nature of the connection have been much more contradictory. Three major hypotheses about the nature of this relationship have been proposed and extensively studied in the psychological literature: sex–gender congruency, androgyny, and masculinity hypotheses. The sex–gender congruency hypothesis was the earliest in the literature, the androgyny hypothesis was proposed later at the beginning of 1970s and the masculinity hypothesis emerged subsequently as an explanation of the mechanism behind the androgyny hypothesis. Below the three classical hypotheses are presented in more detail.

It is first important to note that all these hypotheses have mostly been explored in the conceptual framework of gender-role identity or gender-role orientation. These terms have often been used interchangeably with the term gender identity and have mainly been operationalised through masculinity as instrumental traits and femininity as expressive traits. This conceptual and methodological aspect is of utmost importance in the light of subsequent critique and reconceptualisation of gender identity, discussed extensively in the next chapter, and this aspect will serve as the main ground for evaluating the results of empirical tests of the three classical hypotheses in the field.

The earliest ideas suggested a relatively direct positive relationship between gender identity and psychological adjustment. It was particularly considered that optimal psychological functioning was reached when gender-related characteristics were congruent with the biological sex (e.g. Page & Warkentin, 1938). For example, Kohlberg (1966) suggested that the feeling of consistency with one's gender category can enhance self-esteem, while a lack of gender congruency may impair an individual's sense of self worthiness. This view was based on the notion of a 'natural' link between sex and gender, which defined a healthy gender identity as (traditional) masculinity for men and (traditional) femininity for women (Bassoff & Glass, 1982). This view was also grounded in the assumption that gender identity was a bipolar construct, with femininity at one pole and masculinity at the other (Terman & Miles, 1936).

These early assumptions have subsequently been partly challenged by the concept of androgyny and the two-dimensional approach to gender identity (Bem, 1974, 1981; Bem, Martyna, & Watson, 1976; Constantinople, 1973). An approach that the same person can have characteristics defined as masculine and feminine at the same time has also led to the assumption regarding the existence of a simple, positive link between gender–sex congruency and optimal psychological functioning being challenged. According to the androgyny model, the optimal adjustment is achieved by those who have both masculine and feminine characteristics, and who can also be characterised by flexible attitudes to sex roles. This model received a lot of interest and empirical support at the time (Bem & Lewis, 1975; Gilbert, 1981). Androgynous individuals were found to have the highest levels of social competence and self-esteem compared to masculine, feminine and undifferentiated individuals, and the results on other measures of personal adjustment and psychological functioning paralleled those on self-esteem (Gilbert, 1981). It was also noted, that masculine individuals were sometimes as well adjusted as or even better adjusted than androgynous individuals (Gilbert, 1981). To explain these results, a masculinity model was proposed.

According to the masculinity model, better psychological adjustment is positively related to masculine characteristics (instrumental traits) in both sexes. The masculinity model has been supported by empirical findings, which led to acknowledge that masculinity was often as beneficial for adjustment as androgyny for both sexes (Bassoff & Glass, 1982). In fact, masculinity in particular, but not femininity, was found to account for a better psychological functioning in androgynous individuals (Taylor & Hall, 1982; Whitley, 1985). Although some studies found that not only was masculinity positively associated with well-being for both sexes but also that femininity was negatively associated with it (e.g. Johnson et al., 2006), there is more support for masculinity (instrumental traits) as a predictor of psychological difficulties and well-being. In addition, none of the meta-analyses supported the sex–gender congruency model, according to which the optimal adjustment was reached when gender identity corresponded to biological sex (Taylor & Hall, 1982; Whitley, 1985).

Although the androgyny and masculinity models did challenge the belief that adjustment was positively linked to femininity in women and masculinity in men, they still rested on a problematic understanding of gender identity as a certain cluster of personality traits, which proved to have inadequate construct validity. As has been

shown later, the trait-focused conceptualisation of gender identity overlooked the fact that gender identity was not tied to one domain of personality traits, but was instead multifactorial (Egan & Perry, 2001; Liben & Bigler, 2002; Spence, 1993; Spence & Buckner, 1995). Moreover, the two-dimensional measures of gender identity included only desirable gendered traits, which biased the findings on the links between gender identity and psychological functioning (Aubé & Koestner, 1992; Holahan & Spence, 1980; Spence et al., 1979). As a result, neither of the earlier conceptualisations of gender identity could fully represent a multifactorial, multidimensional and complex construct of gender identity, and, as such, could not fully account for its links to different components of psychological functioning. Thus, despite intensive attempts, based on these early conceptualisations of gender identity, to determine the link between gender identity and certain indicators of psychological functioning, the findings have been mixed and inconsistent across many studies (Bassoff & Glass, 1982; DiDonato & Berenbaum, 2011).

Therefore, there is a need to update and re-conceptualise possible links between gender identity and psychological difficulties and well-being in relation to the revised, more complex understanding of gender identity that exists today in psychology. The multidimensional model of gender identity is used as the basis for organising the following review. The chapter also includes the sub-chapter on gender stereotypes, since they are a component of gender cognition closely related to gender identity.

5.3 Multidimensional understanding of the links

The main idea behind the multidimensional approach to the relationship between gender identity and psychological functioning difficulties and well-being is that the nature of this relationship cannot be described by one unifying hypothesis. Instead a set of hypotheses should be formulated and tested to describe the links between the dimensions of gender identity and particular indicators of difficulties and well-being. It has already been shown in previous studies that different dimensions of gender identity have different links to particular indicators of psychological functioning and, in some cases, these links are completely opposite (Corby, Perry, & Hodges, 2007; Egan & Perry, 2001). Research findings involving each of the established dimensions of gender identity and gender stereotypes are reviewed below.

Gender typicality is the most frequently studied in relationship to psychological difficulties and well-being compared to other dimensions of gender identity. In cognitive tradition it is considered that there is a high motivation to keep the feeling of gender consistency, or gender typicality, since the sense of gender atypicality tends to bring discomfort (Egan & Perry, 2001; Kohlberg, 1966). Close ties of gender typicality to social connectedness in general (DiDonato & Berenbaum, 2012) also make it highly relevant for psychological functioning. Unsurprisingly, gender typicality is the dimension of gender identity that had the closest direct links to psychological difficulties and well-being in previous studies. When discussing the nature and strength of these links, it is important to take into account conceptual differences in the definitions of gender typicality as discussed in Chapter 3.2. Here we focus on gender typicality as self-perceived typicality with regard to one's gender group.

Though there are not yet many studies applying this conceptualisation of gender typicality, existing findings have yielded some support for the hypothesis of a direct relationship between gender typicality and psychological difficulties and well-being. The more typical individual feels with regard to his/her gender group, the less psychological symptoms and difficulties he/she reports and the higher are his/her scores on indicators of well-being. Conversely, the levels of symptomatology increase and well-being decreases with decreasing levels of gender typicality. Substantial direct negative links have been found between gender typicality and internalising symptoms. The moderate strength of the relationship prevails in previous studies with pre-adolescents. Carver, Yunger and Perry (2003) reported zero-order correlations of -.35 (for boys) and -.36 (for girls). Similarly, Yunger et al. (2004) reported partial correlations with gender and age controlled as -.30 in the first year of measurement. Yu and Xie (2010) measured the link between gender typicality and loneliness and reported somewhat higher zero-order correlations of -.53 (for girls) and -.43 (for boys). However, the link between gender typicality and internalising symptoms was found to vary by ethnicity and gender – Corby et al. (2007) reported a statistically significant negative weak link between gender typicality and internalisation for White boys, this approached significance for Hispanic girls, but no link was shown in Black children. Thus, the negative link between gender typicality and internalising symptoms still needs cross-ethnic/cross-cultural exploration, and requires a closer evaluation of the moderation of this link by gender. The findings on the link between gender typicality and externalising symptoms are more consistent – previous studies did not support the existence of this link (Carver et al., 2003; Corby et al., 2007; Yunger et al., 2004).

Gender typicality was also found to be positively related to global self-worth and self-esteem. Egan and Perry (2001) reported zero-order correlation of .48 for boys and .36 for girls, similar tendencies were also observed in subsequent studies (Bos & Sandfort, 2010; DiDonato & Berenbaum, 2011; Smith & Leaper, 2006; Yu & Xie, 2010; Yunger et al., 2004), except for some inconsistent variations by gender and ethnicity (Carver et al., 2003; Corby et al., 2007). Gender typicality was also found to correlate with indicators of positive psychological functioning in the interpersonal sphere, particularly in peer relationships. A positive direct link was found between gender typicality and self-perceived social competence with the size of the relationship being consistently reported as moderate to strong: zero-order correlations of approximately .40 and .50 (Carver et al., 2003; Egan & Perry, 2001; Smith & Leaper, 2006; Yu & Xie, 2010). For the link between gender typicality and acceptance by peers (sociometric ratings), positive weak zero-order correlations of approximately .20 were reported (Egan & Perry, 2001; Yunger et al., 2004). These findings are in line with the study by Corby et al. (2007) who found that gender typicality correlated negatively with bullying victimisation by peers. The authors reported weak negative links for White children in the United States sample (but none for Black or Hispanic children).

To generalise, the hypothesis about the negative relationship between gender typicality and psychological difficulties, and the positive relationship with indicators of well-being, has already gained some support in the literature. However, *testing this hypothesis with new, culturally diverse samples is still necessary, since variations have been*

found across different cultural groups. These links may be moderated by gender, but there is not yet a consistent tendency in the findings about the pattern of this moderation.

Gender contentedness has been found to correlate with fewer indicators of psychological functioning, and with less consistency, when compared to gender typicality. The most consistently documented link is a positive direct correlation between gender contentedness and global self-worth – it has been reported to vary between .24 and .40 between weak to moderate (Carver et al., 2003; Yunger et al., 2004). Other studies found between-gender variation in this link – weak to moderate statistically significant correlations were reported for boys, but not for girls (Egan & Perry, 2001; Smith & Leaper, 2006). However, the link between gender contentedness and global self-worth became statistically insignificant when the other dimensions of gender identity were controlled (Bos & Sandfort, 2010; Egan & Perry, 2001). This finding suggests that there is some interaction between gender contentedness and other dimensions of gender identity, and that *those* other dimensions, that is gender typicality or felt pressure, may account for the link between gender contentedness and self-worth.

With regard to other indicators of well-being, positive weak correlations were found with self-perceived peer social competence (Bos & Sandfort, 2010; Carver et al., 2003). Among the indicators of psychological difficulties, significant links were found with externalising symptoms only – some studies reported a negative direct link between gender contentedness and externalising symptoms for girls, but not boys (Carver et al., 2003; Yunger et al., 2004). Since externalising symptoms were measured by peer-report scales in these studies, the finding indicates that girls who are not content with their gender are perceived by their peers as more aggressive, disruptive and antisocial than more gender-contented girls (Carver et al., 2003).

To summarise, the *general hypothesis regarding positive links between gender contentedness and indicators of well-being, and negative links with psychological difficulties has found some support in previous studies*. However, this general hypothesis *has only been confirmed with a few indicators of psychological functioning and there is some evidence that hypothesised links are moderated by gender, and that the other dimensions of gender identity account for some of these links*.

Felt pressure to conform to gender norms is the dimension of gender identity that has the most complex links with indicators of difficulties and well-being. Considering symptoms and difficulties, felt pressure was associated positively with internalising symptoms – Yunger et al. (2004) reported direct weak, but significant cross-sectional associations and a significant effect of felt pressure on internalising symptoms over a one-year period. With regard to well-being, felt pressure was found to have direct negative correlations, mostly weak, with global self-worth, self-perceived peer social competence (Carver et al., 2003; Egan & Perry, 2001) and social preference by peers (Yunger et al., 2004). All these links were found to be statistically significant for girls only. However, the findings regarding these links were not replicated in some subsequent studies for girls or boys (e.g. Bos & Sandfort, 2010; Yu & Xie, 2010; Smith & Leaper, 2006).

However, felt pressure to conform was also found to have a weak positive correlation with female peer acceptance for girls (measured by sociometric assessment) (Egan & Perry, 2001) – girls who experienced more pressure to conform to gender norms

were better accepted by their peers. Seemingly counter-intuitive positive links between felt pressure to conform and peer acceptance may reflect the normative nature of this dimension of gender identity. The more socially accepted a person is among his or her peers, the more pressure he or she experiences to conform to gender norms due to the more intensive social exchange. In other words, to be accepted means to feel more normative pressure because there simply is more communication and social contact through which normative pressure, including gender normativity, operates since it is a part of an everyday, common social exchange.

Thus, *felt pressure was found to have mostly negative, but also some positive links with indicators of well-being*. Direct links seem to be *weak and not consistently supported* in empirical studies. As in the case of the other gender-identity dimensions, *these links may be moderated by gender* – negative links with self-worth and social competence, and positive links with peer acceptance were more salient for girls.

Gender stereotypes as direct correlates of psychological difficulties and well-being have rarely been studied (DiDonato & Berenbaum, 2011). Nevertheless, the effects of gender stereotypes have been extensively researched and discussed in some related areas of psychological functioning. For example, higher adherence to gender stereotypes was found to impede women's and girls' mathematical task performance, reduce their leadership aspirations (e.g. Cheryan, Davies, Plaut, & Steele, 2009; Davies, Spencer, & Steele, 2005; Schmader, 2002), and contribute to their choosing of stereotypical professional paths (e.g. see review Eccles, 1987). Higher adherence to gender stereotypes was also found to be related to men's poorer health behaviours and higher risk-taking (e.g. Courtenay, 2000). Higher stereotypicality of gender-related attitudes was also related to reduced performance in some aspects of cognitive functioning, for example, higher memory bias (Bigler & Liben, 1990; Bradbard, Martin, Endsley, & Halverson, 1986; Frawley, 2008; Liben & Signorella, 1993).

Thus, generally, positive psychological outcomes are considered to be related to less gender stereotypicality, and more gender flexibility. The same direction of the link has been hypothesised in the field of psychological difficulties and well-being (Bem, 1974, 1981). However, this hypothesis has mostly been tested with regard to the flexibility of gender-related self-attributes rather than gender stereotypes. Thus, the effects of gender stereotypes should be tested separately since gender stereotypes are distinct from gender self-attributes, even though they both are the components of a wider construct of gender flexibility (Bartini, 2006; Katz & Ksansnak, 1994).

DiDonato and Berenbaum (2011) found that a latent variable of sexist attitudes, which consisted of hostile and benevolent sexism and gender-role attitudes, was a significant predictor of negative emotionality and self-esteem in the expected direction. However, taken as separate variables rather than components of sexist attitudes, sexism and gender-role attitudes had different links with negative emotionality and self-esteem. Gender-role attitudes did not have a significant relationship with negative emotionality and self-esteem, while sexist ideology had. Thus, sexist ideology, but not gender-role attitudes, might have accounted for the significance of a combined latent factor, called sexist attitudes, when predicting negative emotionality and self-esteem.

Direct links between gender-role stereotypes and some psychological difficulties were not found in the study by Panayiotou and Papageorgious (2007). As reported by these authors, sex-role stereotypes did not directly predict a depressed mood. However, sex-role stereotypes correlated significantly with proximal predictors of depressed mood. Low endorsement of stereotypes was particularly associated with a wider range of coping styles, which, in turn, predicted lower depressed mood. However, this study found that low endorsement of stereotypes was directly related to higher self-esteem.

The findings from the literature, which explores specific clusters of gender stereotypes (i.e. gender ideologies like sexism, masculinity ideology, femininity ideology, etc.) (Tobin et al., 2010) are more consistent and show direct links in the expected direction. These studies have produced consistent support for a relationship between some gender ideologies, for example, adolescent femininity ideology and adolescent girls' psychological difficulties. It was repeatedly found that a higher endorsement of adolescent femininity ideology was negatively associated with self-esteem and positively associated with depression among adolescent girls (Impett et al., 2008; Tolman et al., 2006).

Thus, *gender stereotypes may be directly related to some indicators of psychological functioning in a way that more flexibility is linked to higher well-being, while higher stereotypicality is linked to more difficulties.* However, direct links between gender stereotypes and psychological-functioning indicators are found in some studies, but not supported in others. This may be related to the methods of measurement employed in these studies since gender stereotypes can be measured in different ways (Tobin et al., 2010). Measuring gender stereotypes as ideologies provides more support for the discussed links.

To summarise, direct links between the elements of gender cognition and psychological functioning difficulties and well-being can be defined hypothetically as follows: *higher gender typicality and higher gender contentedness are related to lower levels of psychological difficulties and higher well-being, while higher felt pressure and stronger adherence to gender stereotypes are related to higher difficulties and lower well-being.* In previous studies, the most consistent support was found for the hypothesised direct links in the case of gender typicality. The findings on gender contentedness also show support for the existence of similar links. However, previous findings on felt pressure for gender normativity and gender stereotypes indicate that direct links between these variables and psychological difficulties and well-being are rather spurious. Thus, the *general hypothesis regarding links between the elements of gender cognition and psychological difficulties and well-being needs further empirical testing, including the analysis of moderating effects by gender.*

Moreover, one of the limitations of previous studies in the field is the tendency to disregard possible shared variance between gender-identity dimensions in their relationships with indicators of difficulties and well-being. Previous studies show that the elements of gender identification are positively interrelated. Weak to moderate positive correlations were found between gender typicality, gender contentedness and, in most studies, felt pressure. The first two dimensions have also been found to correlate positively with other gender-related constructs, such as agentic traits for boys

and communal traits for girls (Egan & Perry, 2001). These findings suggest that there is a certain amount of shared variance between the elements of gender identity and related constructs.

Despite that, most of the previous reports present data from simple correlation analysis (Carver et al., 2003; Corby et al., 2007; Yunger et al., 2004; Smith & Leaper, 2006), and this method does not provide a possibility for unique links between separate dimensions of gender identity to other variables of interest to be analysed. Even if a study does report unique effects of separate gender-identity dimensions (e.g. Bos & Sandfort, 2010; Egan & Perry, 2001; Yu & Xie, 2010), further implications of these findings are not analysed, tested or discussed. Previous findings with child and early-adolescent samples suggest that gender typicality is the strongest unique predictor of psychological difficulties and well-being. However, since gender flexibility increases in adolescence, the role of self-perceived gender typicality may be reduced in adolescent samples. We aim to address the question of *unique links between gender cognition elements and selected indicators of psychological difficulties and well-being* by applying statistical analysis tools, in particular, structural equation modelling (SEM), which allow a relationship between the variables of interest to be assessed with other variables in the model controlled.

6. RESEARCH QUESTIONS AND HYPOTHESES

Research question 1. What is the structure of gender identity in a middle- to late-adolescent sample in Lithuania?

Previous studies confirm that the structure of gender identity is multidimensional and covers gender typicality, gender contentedness and felt pressure to conform to gender norms. However, support for the structural validity of the construct, and its gender invariance, is generally lacking. Moreover, in previous studies, the multidimensional model was mostly tested on children and early adolescents. It remains unclear as to whether the proposed structure of gender identity can be extended to the period of middle to late adolescence, as suggested by Tobin et al. (2010). Based on these observations, with regard to the first research question *this study aims*: 1) *to identify the structure of gender identity and stereotypes in a middle- to late-adolescent sample in Lithuania*; 2) *to test if the identified structure is invariant by gender*; 3) *to assess the discriminant validity of identified gender-identity dimensions*.

The following hypotheses are formulated for validation analysis:

H1: the identified structure of gender identity is invariant by gender and grade of adolescents;

H2: the gender-identity dimensions are positively related to, but do not overlap with, trait sex typing, adherence to adolescent gender ideologies and gender-role stereotypes.

Research question 2. What are the relationships between gender-identity dimensions and indicators of psychological difficulties and well-being in middle to late adolescence?

The conceptualisation and operationalisation of gender identity has changed substantially over the last few decades, therefore, existing knowledge on the links between gender identity and psychological functioning should be revisited. The new multidimensional conceptualisation of gender identity has been explored in this context only with child and early-adolescent populations; therefore, gaps of knowledge remain regarding the period of middle to late adolescence. The overlapping effects of gender stereotypes need to be controlled when assessing the effects of gender-identity dimensions. With regard to the second research question *this study aims:* 1) *to identify the unique direct and indirect contributions of each of the gender-identity dimensions and stereotypes in predicting selected indicators of psychological difficulties and well-being*; 2) *to identify possible gender effects on these links*.

The following hypotheses were formulated to address this research question:

H3: higher gender typicality and higher gender contentedness are related to lower levels of psychological difficulties and higher well-being, while higher felt pressure and stronger adherence to gender stereotypes are related to a higher level of psychological difficulties and a lower level of well-being;

H4: gender moderates the links between gender-identity dimensions and selected indicators of psychological difficulties and well-being.

7. METHODOLOGY

7.1 Participants

In total, 530 adolescents, aged 14–19 years (M = 16.01, SD = 0.97), participated in this school-based survey. Slightly more boys (n = 282, 53.2%) than girls (n = 248, 46.8%) took part in the study, but the proportion did not differ significantly from the expected 50:50 ratio (χ^2 = 2.18, df = 1, p = .14). The participants included adolescents from different grades, types of schools, school locations and ethnicities, as described in detail below.

The frame of the population under study was defined as ninth to eleventh grade students in the biggest administrative region of Lithuania – the Vilnius region. This region was chosen based on convenience (proximity to the university) and accessibility (several schools in this region had a cooperation agreement with the university). The sampling was carried out applying a pre-defined quota, calculated on the basis of the regional data provided by Statistics Lithuania (see Annex A). The sample was chosen by conveniently selecting particular schools and classes according to the quota.

The participants were in the ninth (n = 151), tenth (n = 197) and eleventh (n = 182) grades during the assessment. In the sample, there were slightly more tenth grade (37.2%) and slightly less ninth grade (28.5%) students compared to the respective numbers in the Vilnius region (33%, 32% and 35%, respectively; χ^2 = 7.76, df = 2, p = .02). Gender and age distribution by grade are presented in Table 1.

Table 1. *Distribution of Study Participants in Different Grades by Gender and Age*

Grade	Ninth	Tenth	Eleventh
n (%)	151 (28.5)	197 (37.2)	182 (34.3)
Gender (n girls/n boys)	77/74	80/117	91/91
Age (M (SD))	14.83 (0.44)	16.06 (0.55)	16.93 (0.50)

When defining the quota for the study's sample, the type of school was also taken into account. According to Statistics Lithuania, close to half of the ninth to eleventh grade students in the region were studying in gymnasiums (48%), while another 39% were studying in high schools. The rest of the students in the region (13%) were studying in specialised schools (see Annex A). Based upon the large diversity within the specialised schools (they range from art schools to correctional institutions for delinquent adolescents) and the relatively small overall share of pupils from these schools in the region, it was decided to include only high-school and gymnasium students in the sample. Thus, our sample included adolescents from two high schools (n = 228, 43%) and three gymnasiums (n= 302, 57%). The proportion did not differ significantly from that in the region (45% and 55%, respectively, specialised schools excluded) (χ^2 = 0.84, df = 1, p = .36).

The quota for the sample also addressed the location of schools. Based upon the data from Statistics Lithuania, 67% of the students in the region come from the capital's schools, the rest (33%) come from other urban-area and rural-area schools in the region. In this study's sample, schools were selected to represent the diversity of locations. Three schools were located in Vilnius and two were based in more peripheral locations of the region. The overall share of students attending the capital's schools was 67% (equal to the proportion in the whole region). The rest (33%) of the participants came from one peripheral city school (22%) and one rural school (11%) in the Vilnius region.

Based upon the parameters discussed above our sample can be considered as fairly representative of the general population of ninth to eleventh grade students in the Vilnius region. The system of schools in the Vilnius region is similar to that in other administrative regions of Lithuania. However, the distinctive feature of the Vilnius region, compared to other regions, is ethnic structure. According to the census data from 2001, ethnic Lithuanians constituted 54.9% of the residents in the Vilnius region; while countrywide the figure was 83.9% (*Statistical yearbook of Lithuania 2011*, 2011). The ethnic structure of our sample was similar to that in the general population of the country – the proportion of ethnic Lithuanian participants was 81.5% of the sample. Ethnic minorities in our sample included Poles (10%), Russians (3.7%) and other ethnic groups (1%) (the rest did not indicate their ethnicity).

To conclude, the convenience quota sample collected for this study can be considered comparable to the population of ninth to eleventh grade students in the country with regard to the following characteristics: gender, grade, ethnicity and type of school attended. However, with regard to the type of residential area, the similarity of the sample to the population of ninth to eleventh graders in the country has serious limitations – residence in the capital city may be distinct in many aspects from residence in major cities of the other administrative regions in Lithuania.

7.2 Procedure

Data collection took place between December 2011 and February 2012. Firstly, schools that had a cooperation agreement with the university were invited to participate in the study. Four out of the five initially-addressed schools accepted the invitation. One school declined due to an overload of requests from researchers. Another school of the same type and similar in size and location was approached instead. Within the five participating schools, two classes of students for each grade were selected by convenience and all of the students in these classes were invited to participate in the study.

Students were recruited in classrooms during school hours. Questionnaires were completed in class during school hours and administered by trained researchers. Teachers were not present during this process. The questionnaire took from 25 to 45 minutes to complete. Students were informed that participation was voluntary, anonymous and confidential; they were assured that their answers would not be revealed to parents, teachers or anyone else. The adolescents were informed that they were free to end

participation in the study at any time. They were not paid for their participation, but could leave their e-mail addresses with researchers in order to receive general feedback on the study results.

A passive parental consent procedure was employed. Parents were informed of the study by letter (in either print or electronic form) and were asked to contact the researchers if they did not want their children to participate. Students whose parents objected to their child's participation (1% of initially contacted adolescents) did not participate in the survey. In addition, the sample does not include students who were absent from school on the day of data collection due to various reasons (20% of the overall number of students in selected classes) (see Table 2 for detailed information on sample coverage).

Table 2. *Sample Coverage Statistics*

Grade	Number of students in selected classes	Absent during data collection	Lack of parental consent	Participants	Overall coverage	Damaged/ incomplete question- naires
Ninth	213	44	3	166	78%	15
Tenth	238	37	2	199	84%	2
Eleventh	243	57	0	186	77%	4
Total	694	138	5	551	79%	21

Note. The figure for coverage in the eleventh grade may be inflated due to difficulties in accessing data regarding the number of students in different study tracks in two of the participating schools. Eleventh grade students from the same class have different study tracks and, therefore, attend different subjects. When providing the total number of students, the two schools provided the total number in the class instead of the total number in the particular study track who actually participated in the study. As a result, the percentage overall coverage in the eleventh grade may be lower here than in the study.

7.3   Instruments

7.3.1 Development of gender identity and stereotypes scales

In our study, initial piloting of the instruments to measure gender identity showed that the scales had to be revised and adapted for use with adolescents in the Lithuanian context. Thus, the necessary steps were taken to revise and develop the instruments. In particular, the Adolescent Gender Identity Scales were developed for measuring the dimensions of adolescent gender identity and the Adolescent Gender Role Stereotypes Scale was developed to measure gender stereotypes of adolescents. The detailed procedure of scale development and revision is described below and summarised in Table 3.

Development of the scale to measure adolescent gender-identity dimensions was based on the Gender Identity Scales developed by Egan and Perry (2001) in the United States (US). Originally, Egan and Perry (2001) presented their concept of multidimensional gender identity and respective empirical instruments to measure the dimensions of gender identity in pre-adolescent children – early adolescent samples (initial sample: fourth to eighth grades; average age: 11 years nine months at the first measurement). Later this instrument was used with children and adolescents of varying ages, for example, with third to sixth graders – average age of 10.67 years (Yu & Xie, 2010); with children and early adolescents from eight to 12 years of age (Bos & Sandfort, 2010); with adolescents from 12 to 16 years of age (Jodoin & Julien, 2011); and from 12 to 17 years of age (M = 14.4, SD = 1.5) (Smith & Leaper, 2006). The gender typicality subscale was even used with undergraduate participants of 18–32 years of age (DiDonato & Berenbaum, 2011). Despite sizable age variations in previous samples, the original instrument was intended for children and early adolescents. Therefore, its applicability in samples with higher ages had to be tested. Since in this study, the focus is on middle to late adolescents (grades nine to eleven, ages 14–19 years), the original version of the questionnaire had to be revised for use with this age group.

Another argument for the revision of the instrument originally developed and tested with the US samples was possible cultural-contextual variations related to the constructs/elements of the constructs under study. As Corby, Perry and Hodges (2007) observe, the factor structure of the Gender Identity Scales may differ across ethnic/racial groups. The authors suggest that modifications to Egan and Perry's model may be necessary in order for it to be applicable to different ethnic/cultural groups. This is further supported by the Yu and Xie (2010) study in China, which showed that some of the items in one of the subscales (gender contentedness) might be inappropriate for studies with Chinese participants and thus revision, removal or development of new culture-specific items was suggested. Therefore, the cross-cultural measurement of gender-identity dimensions is not well established. Moreover, there is some variation across studies as to which format of items is used (forced-choice or Likert-type), which particular items are included in the scales, and whether all or just one of the dimensions are measured. Based on these and related (e.g. see Tobin et al., 2010) observations, revision and adaptation of the instrument for the Lithuanian cultural context was carried out.

The procedure for the development and revision of the instrument was as follows:

1) Search for an existing instrument for measuring dimensions of gender identity. The Gender Identity Scales developed by Egan and Perry (2001) was identified and selected as the most suitable basis for further instrument development. This instrument includes the Gender Typicality, Gender Contentedness, Felt Pressure and Intergroup Bias Scales. The latter scale was not included in the procedure based on the conceptual reasons discussed in detail in Chapter 3.2.

2) Translation of the original scale items relevant for late adolescents in Lithuania. Review of the original scales revealed that most of the items were relevant for use with middle to late adolescents. However, six items were considered unsuitable because they included either particular gender-stereotyped activities not related to late adolescence

(e.g. hunting) or culture-specific activities (e.g. baton twirling). Two more general items (culture-neutral, not specifying particular gendered activity) were added in their place to make the number of items equal on all subscales: 'Some girls think their parents (/the girls they know) would be upset if they wanted to do what only boys usually do'. Overall, 18 items translated into Lithuanian, compared to the 22 original items. The translated scale had six items for each of the three subscales. The items were translated into Lithuanian by a professional interpreter, and then reviewed by two psychology researchers. The inconsistencies were solved with the help of e-mail consultations with one of the authors of the original questionnaire – D.G. Perry, who also consented to the instrument being translated into and used in Lithuania.

Table 3. *Steps for Developing Adolescent Gender Identity Scales*

Step	Initial items	Dropped items	New items	Total items	Comments
1) Identify existing instruments for the three dimensions of gender identity	22			22	Items from Gender Identity Scales (Egan & Perry, 2001), developed in the United States for pre-adolescent children to early adolescents.
2) Translate age-relevant items	22	6	2	18	Age- and culture-irrelevant items dropped.
3) Pilot translated scales	18			18	Response scale revised from forced-choice to Likert-type.
4) Pilot revised scales	18			18	Insufficient reliability of one scale detected.
5) Qualitative pilot study: open-ended questions on gender identity presented to a group of 15–18 year olds	18	4	17	31	New items, generated from adolescent replies, added to the translated items to form a 31-item pool. Formulations of all items and a response scale (five-point Likert-type) checked in think-aloud procedure.
6) Exploratory factor analysis (reported in Chapter 8.1.1.)	31	4		27	Items loaded on four factors: gender typicality, gender contentedness, gender oppression and felt pressure. Four items were dropped due to low or double loadings.

Note. A detailed description of each step is presented in the text.

3) Piloting and revision of a response scale. In the first Lithuanian version of the instrument, all of the subscales used a structured alternative format, as was used in

the original version. In particular, each item was formulated as two bipolar statements, the participant had to first select one of these statements and then rate it as 'sort of true' or 'really true' for him/her. The first pilot study, carried out in the spring of 2009, revealed problems with this response format. Although written instruction on how to complete the questionnaire was provided, many of the participants filled in the form incorrectly, rating both bipolar statements rather than choosing and rating one of them. Similar results were obtained in the Marsh and Holmes study (1990, cf. Wichstrøm, 1995), where 31% of the participants did not complete the structured alternative-format questionnaire correctly (in that case – Harter's Self-Perception Profile for Adolescents). Since there was no possibility for all participants to be instructed in how to complete the survey correctly before filling in this particular questionnaire or for each participant's responses to the scale to be individually monitored, it was decided to modify the scale of the original instrument by changing it into the common Likert-type scale with four response options, from 1 = *not true at all for me* to 4 = *very true for me*. For each item, one statement formulated as a self-description (e.g. 'I feel that the kinds of things I'm good at are similar to what most girls are good at') was used instead of two bipolar statements.

Similar revisions of the Multidimensional Gender Identity Scale response format were carried out by Bos and Sandfort (2010), DiDonato and Berenbaum (2011), and Jodoin and Julien (2011). Wichstrøm (1995), who examined Harter's Self-Perception Profile for Adolescents, observed that the change from structured alternative response format to a common Likert-type format did not result in a higher contamination with social desirability (the initial argument for applying the alternative structured format in the scale). Moreover, the modified version of the questionnaire showed higher reliability and convergent and factorial validity when compared to the original forced-choice version (Wichstrøm, 1995). These were the methodological arguments for modifying the response format of the gender-identity scale.

4) Piloting the revised scale. The second pilot survey was carried out in the spring of 2009. The participants were 107 high-school students (68 girls and 39 boys) aged 16 to 18 years (M = 17.16, SD = 0.42). The survey took place at one of Vilnius's gymnasiums (*Užupio gimnazija*); permission to conduct the pilot study was obtained from the school administration. The students completed the questionnaires at school during lessons, voluntary participation and confidentiality was ensured. Multidimensional gender identity was piloted together with a larger package of measurement instruments. Some of the results of this pilot survey are presented in Erentaitė and Žukauskienė (2010). The internal consistency of the three gender-identity scales was assessed for: gender typicality (six items), Cronbach's α = .51; gender contentedness (six items), Cronbach's α = .75; and felt pressure for gender conformity (six items), Cronbach's α = .78. Although limited, some preliminary information on construct validity was also obtained during the pilot study. Firstly, gender differences in the means of gender-identity dimensions were in the predicted direction – boys reported higher felt pressure to conform to gender norms and more gender contentedness. Secondly, gender-identity dimensions related to two indicators of internalising symptoms (depression and anxiety) in the predicted direction – gender typicality and gender contentedness were negatively related to depression (r = -.53, p < .01 and r = -.43, p < .01), and anxiety (r = -.32, p < .10 and

r = -.30, *p* < .10) for boys, and higher felt pressure was related to higher anxiety for girls (*r* = .26, *p* < .05). In general, the findings of the pilot study provided preliminary support for the applicability of the multidimensional model of gender identity in the Lithuanian context, and for an older group of adolescents than in the previous research, since applying the constructs of gender typicality, gender contentedness and felt normative pressure yielded meaningful empirical data and replicated previous tendencies both with regard to patterns of gender differences, and links between gender identity and internalising symptoms. However, the pilot study also showed that the scales for measuring gender-identity dimensions needed further adaptation and validation with Lithuanian adolescents, especially the gender-typicality scale because its internal consistency was relatively low. Pilot studies with larger samples (e.g. Malinauskienė, Vosylis, Erentaitė, & Žukauskienė, 2010) provided similar findings on the internal consistency of the scales; therefore, further attempts to improve these scales were undertaken.

5) *Qualitative study of adolescents' conceptualisations of gender typicality, gender contentedness and felt pressure.* Following Egan and Perry's (2001) construct descriptions of the three gender-identity dimensions, and Perry and Pauletti's (2011) guideline questions for gender-identity measures (p. 68), eight open-ended questions were prepared for adolescents participating in the qualitative step of instrument refinement. Twenty-three girls and 18 boys (aged 15 to 18 years, selected by convenience) answered the following questions in written form:

a. 'In which ways are you similar to other boys (/girls) of your age?'
b. 'In which ways are you different from other boys (/girls) of your age?'
c. 'What expectations for you, as a boy (/girl), do you face in your environment?'
d. 'Who is the source of these expectations?'
e. 'What do you like about being a boy (/girl)?'
f. 'What do you not like about being a boy (/girl)?'

Thematic analysis was carried out on the responses provided and the most frequent categories/topics were identified. Statements for gender-identity dimensions were generated based on the most frequent response categories.

The *Think-aloud-protocols* method (Bergman, 1995) was used to pre-test the initial formulations and content relevance of all generated statements. Three late-adolescent girls and four boys participated in this pre-test procedure. The participants were asked to answer each item on a response scale from 1 = *completely disagree* to 5 = *completely agree*, while voicing any thoughts and reactions that arose in the process. Based on the observations from this procedure, part of the newly-developed statements were removed or revised. The final list of items, comprising approximately half new (generated from qualitative study) and half old (translated from Egan and Perry) items, included 31 statements.

The content of our instrument differed from the US original version in the following aspects. Firstly, the gender-typicality scale covered appearance and body issues, while these were missing from the original. Body and appearance was mentioned most often by adolescents as an important dimension of gender typicality. This dimension was important for both girls and boys; therefore, several items on body and appearance were

included in the gender-typicality scale. Secondly, it was ensured that the items on the gender-contentedness scale measured satisfaction with one's gender role, rather than one's sex. For example, the item 'I like being a boy' was changed into 'I like my role as a boy'. Thirdly, the felt-pressure scale was expanded to include felt pressure from teachers and peers of a different sex, because it was identified that these are important sources of pressure to conform to gender norms for Lithuanian adolescents.

6) Exploratory factor analysis (EFA) of the data with the revised version of the instrument. EFA for gender-identity scales was carried out. The results of the EFA and structure of the final scales are provided in the Results section below.

Along with the development of a gender-identity instrument, a measure for gender-role stereotypes was also constructed in this study in order to control for overlapping effects of gender identity and gender stereotypes (Tobin et al., 2010). The purpose of scale development was to have a stereotype measure relevant for the age and cultural context of the study sample. There are few instruments on gender stereotypes and ideologies designed specifically for adolescents, most are constructed with samples of undergraduates or adults. Reviews of the existing measures provide numerous critical observations regarding the use of gender-stereotype scales, primarily, for out-dated content in the context of the social changes of the most recent decades (Smiler & Epstein, 2010), and also for universalising, singular approach towards gender ideologies and a lack of intersectionality perspective (Thompson et al., 1992). Considering these observations and aiming for a culturally contextualised and age-relevant instrument, a gender-role stereotypes scale was constructed specifically for this study.

Construction of this scale followed a similar procedure as in the case of the gender-identity subscales. The same convenience sample of adolescents (23 girls and 18 boys, aged 15 to 18 years) was asked the following additional question to elicit prescriptive gender stereotypes: 'What qualities and behaviour should a boy(/girl) of your age have?'. Thematic analysis was carried out with the responses provided by adolescents and the most frequent categories/topics were identified. Statements for the scale were generated based on the most frequent response categories. Think-aloud-protocols were used to pre-test the initial formulations and content relevance of all generated statements. The list of items for the gender-stereotypes scale included 12 statements. The response format was from 1 = *completely disagree* to 5 = *completely agree*. All items were subject to EFA, reported in the Results section below. Factor analysis was carried out separately for gender-identity and gender-stereotype instruments, since these constructs are considered separate, distinct factors, as conceptualised in Tobin et al.'s (2010) gender self-socialisation model.

7.3.2 Measures for gender-related constructs

Measures for gender-related constructs in this study included the *Adolescent Gender Identity Scales* (AGIS, constructed for this study, based on Egan & Perry, 2001); *Adolescent Gender Role Stereotypes* (AGRS, constructed for this study); the *Trait subscale* from the *Occupations Activities Traits* short scales (OAT, short version, Liben & Bigler, 2002); the *Adolescent Femininity Ideology Scale* (AFIS, Tolman & Porche, 2000; Tolman

et al., 2006); and the *Adolescent Masculinity Ideology in Relationships Scale* (AMIRS, Chu, Porche, & Tolman, 2005). The first two scales are the main instruments of the study, while the rest of the gender-related scales are used to assess the discriminant validity of gender-identity scales. Detailed descriptions of the instruments are provided below, and their psychometric characteristics are presented in Table 4.

Table 4. *Psychometric Characteristics of Measures for Gender-Related Constructs*

Scale	Subscales	Number of items	Cronbach's alpha	Test–retest $n = 17$
Adolescent Gender Identity Scales (constructed for this study, based on Egan & Perry, 2001)	Gender typicality	8	.86	.73
	Gender contentedness	3	.70	.54
	Gender oppression	6	.69	.89
	Felt pressure	10	.90	.80
Adolescent Gender Role Stereotypes (constructed for this study)		10	.79	.81
Trait subscale from the *Occupations Activities Traits* short scales (OAT, short version, Liben & Bigler, 2002)	Masculine traits	10	.76	.75
	Feminine traits	10	.61	.82
Adolescent Femininity Ideology Scale (AFIS, Tolman & Porche, 2000; Tolman et al., 2006)	Inauthentic self in relationships	8	.56	.92
	Objectified body consciousness	9	.79	.95
Adolescent Masculinity Ideology in Relationships Scale (AMIRS, Chu, Porche, & Tolman, 2005)		12	.66	.86

Note. The retest was carried out with a convenience subsample (one class of eleventh grade participants) two weeks after the main study.

Adolescent Gender Identity Scales (AGIS) was used to measure the dimensions of gender identity in adolescence. The scales were constructed based on the Gender Identity Scales developed by Egan and Perry (2001). The detailed procedure of scale construction is described in Chapter 6.3.1. The results of factor analysis supported a four-dimensional structure for the instrument (see detailed results of the analysis in Chapter 8.1.1), thus, the questionnaire consists of four subscales: gender typicality, gender contentedness, gender oppression and felt pressure to conform to gender norms.

The *gender-typicality* subscale (eight items) measures the degree to which one feels a typical member of one's gender category. Felt typicality is measured with regard to

character, leisure activities, opinions, behaviours, priorities, appearance and overall similarity to same-gender peers. A sample item: 'I feel similar to other girls (/boys) of my age'. The *gender-contentedness* subscale (three items) measures the degree of satisfaction with one's gender. Satisfaction is measured with regard to gendered activities, achievements and overall gender role. A sample item is 'I like my role as a girl (/boy)'. The *gender-oppression* subscale (six items) measures the degree of dissatisfaction with restrictive social norms for one's conduct based on one's gender. Dissatisfaction is measured with regard to felt gender-based restrictions for one's activities, behaviours and achievements, and faced overall gendered ratings of oneself. A sample item: 'I feel it is unfair that I have to do certain things just because I am a girl (/boy)'. The *felt-pressure* subscale (10 items) measures the degree to which one feels pressured to conform to gender norms. Sources of felt gendered pressure, covered in the scale, include female peers, male peers, parents, teachers and self (internalised pressure). A sample item is 'My parents would not like it if I behaved the way that only boys (/girls) do'.

The participants were asked to answer each item on a response scale from 1 = *completely disagree* to 5 = *completely agree*. The total score for each subscale is the mean of its items, which ranges from 1 to 5. Higher scores indicate higher felt gender typicality, more contentedness with one's gender, more dissatisfaction with normative gendered regulations, and higher felt pressure for gender conformity.

Adolescent Gender Role Stereotypes (AGRS) scale measures the level of stereotypicality of adolescents' attitudes towards gender roles. The scale was developed specifically for this study following the procedure described in Chapter 7.3.1. The results of factor analysis supported a one-dimensional structure for the instrument, as reported in Chapter 8.1.3.

In this scale, the stereotypicality of attitudes is measured with regard to activities, behaviours, interests and priorities, traditionally attributed to one, but not the other gender. A sample item is 'Tears are more inappropriate for boys than for girls'. An essentialist belief in gender differences is reflected in the content of the items. The majority of the items in the scale are prescriptive, that is, they express beliefs about what girls and boys *should* or *should not* be like. There are 10 items in the scale scored on a five-point Likert-type rating scale, ranging from 1 = *completely disagree* to 5 = *completely agree*. The total score is the mean of all scale items, which ranges from 1 to 5. Higher scores on this scale indicate higher adherence to stereotypical attitudes towards gender roles, while lower scores show more flexible views with regard to gender roles.

Trait subscale from the *Occupations Activities Traits* short scales (OAT, short version, Liben & Bigler, 2002) was used to assess trait sex typing of the self. The whole battery of OAT scales is designed to assess sex typing of self and others with regard to different domains (occupations, activities and traits). The trait subscale was only used in this study, since trait sex typing is the most commonly used sex typing measure in the literature and, as such, is the most suitable for validation purposes. The trait sex typing of self scales were only used for validity analysis of the gender-identity instrument in this study.

The trait sex typing measure consists of 25 adjectives that describe the character traits and abilities of a person. Ten of these adjectives refer to the instrumental traits and abilities associated with masculinity, and make up a subscale of *masculine traits*. Sample items include: 'dominant' and 'acts as a leader'. Ten other adjectives in the scale refer to expressive traits and abilities associated with femininity, and make up a *feminine traits* subscale. Sample items include: 'emotional' and 'affectionate'. The remaining five adjectives are gender-neutral and are not included in the calculations of the participants' scores. Respondents are asked to rate themselves with regard to each of the adjectives on a four-point Likert-type scale, which ranges from 1 = *not at all like me* to 4 = *very much like me*. Higher scores on the *masculine traits* subscale show a stronger tendency to attribute masculine traits to oneself, and higher scores on the *feminine traits* subscale show a stronger tendency to self-attribute feminine traits.

This scale has not been previously used in published studies with Lithuanian samples. The instrument was translated into Lithuanian after receiving written permission from one of the authors of the OAT scales (Lynn S. Liben). Two independent translations of the scale were compared to prepare the Lithuanian version. The backwards translation procedure was used to compare this version with the original and a few inconsistencies were resolved. The validity of the scale in this study is demonstrated by statistically significant gender differences on both feminine (t (526) = 13.37; $p < .001$; for girls: $M =$ 2.94, $SD = 0.42$; for boys: $M = 2.45$, $SD = 0.42$) and masculine (t (526) = -2.99; $p < .01$; for girls: $M = 2.76$, $SD = 0.57$; for boys: $M = 2.91$, $SD = 0.56$) traits, and by statistically significant correlations with pubertal status ($r = .16$, $p < .05$ for femininity with girls' pubertal status, and $r = .13$, $p < .05$ for masculinity with boys' pubertal status).

Adolescent Femininity Ideology Scale (AFIS, Tolman & Porche, 2000; Tolman et al., 2006) is a self-report questionnaire, which measures the degree of adherence to feminine ideology, that is, to the cultural expectations for a feminine gender role in adolescence. In this study, the scale was only used for validity analysis of the gender-identity instrument.

The questionnaire was developed for and used with adolescent girls. It covers two topics that are considered to be the defining aspects of femininity ideology in adolescence (Tolman & Porche, 2000). Firstly, inauthenticity in relationships is defined by the extent to which an adolescent girl is inclined to hide her true feelings and thoughts in order to preserve good interpersonal relationships. The subscale measuring this construct is called *inauthentic self in relationships*. There are 10 items in the original scale version (Tolman and Porche, 2000); however, confirmatory factor analysis in a later study showed that a model with nine items fit the data better (Tolman et al., 2006). In this study, eight items were retained to measure inauthenticity in relationships (two items with the lowest item-total (minus item) correlations removed). A sample item was 'I often look happy on the outside in order to please others, even if I don't feel happy on the inside'.

The second aspect of the femininity ideology covered in the AFIS scale is the objectified relationship with one's body. This construct is defined as the extent to which an adolescent girl is inclined to treat her body as an object, which is constantly observed

and assessed by others. The subscale measuring this construct is called *objectified relationship with body*. There are 10 items in the original scale version (Tolman and Porche, 2000); however, confirmatory factor analysis in a later study showed that a model with eight items fit the data better (Tolman et al., 2006). In the present study, nine items were retained to measure an adolescent's objectified relationship with the body (an item with the lowest item-total (minus item) correlation removed). A sample item was 'I think that a girl has to be thin to be beautiful'.

The instrument was translated into Lithuanian after receiving written permission from one of the researchers from the scale development group (Emily Impett). Two independent translations of the scale were compared to prepare the Lithuanian version. The backwards translation procedure was used to compare this version with the original and a few inconsistencies were resolved. A two-factor structure of the translated version of the questionnaire was confirmed with a sample of 555 adolescent girls (Erentaitė, 2011). All items were measured on a six-point scale: from 1 = *completely disagree* to 6 = *completely agree*. The total score for each subscale is computed as a mean of all subscale items and it ranges from 1 to 6. The higher the score, the higher the inauthenticity in relationships and the more objectified is a girl's relationship with the body.

Adolescent Masculinity Ideology in Relationships Scale (AMIRS, Chu, Porche, & Tolman, 2005) examines adolescent boys' endorsement of masculinity ideology specifically in the context of interpersonal relationships. In this study, the scale was only used for validity analysis of the gender-identity instrument.

AMIRS builds on the Masculine Role Attitudes Scale (MRAS, Pleck, Sonnerstein, & Ku, 1993) and contains 12 items, many of which are worded similarly to MRAS but express masculinity in more relational terms (e.g. 'A man always deserves the respect of his wife and kids' became 'In a good dating relationship, the guy gets his way most of the time'). The instrument was translated into Lithuanian after receiving written permission from one of the researchers of the scale development group (Judy Y. Chu). Two independent translations of the scale were compared to prepare the Lithuanian version. The backwards translation procedure was used to compare this version with the original and a few inconsistencies were resolved. All items are measured on a four-point scale: from 1 = *completely disagree* to 4 = *completely agree*. The total score for the scale is computed as a mean of all the items and it ranges from 1 to 4. The higher the score, the more a boy adheres to masculinity ideology in relationships. This scale has not been previously used in published studies with Lithuanian samples.

As can be seen from Table 4, all of the scales measuring gender-related constructs in this study have adequate psychometric properties. Two aspects of the reliability of the scales were assessed in this study: internal consistency between the items of each scale and the stability of the ratings over time. Cronbach's alphas of the scales indicated 'very good' (.90) to 'satisfactory' (.56) internal consistencies. Test–retest correlations showed a high stability of measurement for the scales used in the study (*r* ranged from .73 to .95), except for the Gender Contentedness scale (*r* = .54). This scale had good internal consistency, but showed lower stability of ratings over time, which could indicate either its heightened sensitivity to repeated measurements, or higher flexibility of the construct

over time. However, the Inauthentic Self in Relationships scale showed high test–retest reliability, but its internal consistency was only satisfactory, which might indicate that the construct is not completely one-dimensional but is stable over time.

7.3.3 Measures for psychological difficulties and well-being

Measures for difficulties in psychological functioning included the *Centre for Epidemiological Studies Depression Scale for Children* (CES-DC, Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986); the *Peer-related Loneliness Subscale* from the *Loneliness and Aloneness Scale for Children and Adolescents* (LACA, Marcoen et al., 1987); and the *Delinquent Behaviour Scale* (based on Persson, Kerr, and Stattin, 2007, and Magnusson, Dunér, and Zetterblom, 1975). The structural validity of these measures was tested using a confirmatory factor analysis (CFA) with parcelled indicators for each of the latent factors. Three to four parcels per latent variable were created based on item–item covariances and the conceptual similarity between items. The results of the CFA indicated a good overall fit of the implied factor structure to the data: χ^2 (30, $N = 530$) = 126, $p < .001$; CFI = .96; RMSEA = .08; SRMR = .05. The loadings for the parcelled measurement model for indicators of psychological difficulties are presented in Figure B.1 in Annex B.

Measures of well-being included the *Rosenberg Self-Esteem Scale* (RSES, Rosenberg, 1965); the *Generalized Self-Efficacy Scale* (GSES, Schwarzer & Jerusalem, 1995), and the *Multidimensional Students' Life Satisfaction Scale* (MSLSS, Huebner, 2001). The structural validity of these measures was tested in a CFA with parcelled indicators for each of the latent factors. Three to four parcels per latent variable were created based on item–item covariances and conceptual similarity between the items. Results of the CFA indicated a good overall fit of the implied factor structure to the data: χ^2 (30, $N = 530$) = 126, $p < .001$; CFI = .96; RMSEA = .08; SRMR = .05. The loadings for the parcelled measurement model of positive aspects of psychological-functioning indicators are presented in Figure B.2 in Annex B. Detailed descriptions of the instruments are provided below, and their psychometric characteristics are presented in Table 5.

Centre for Epidemiological Studies Depression Scale for Children (CES-DC, Faulstich et al., 1986) was used to measure depressive symptoms in adolescents. The symptoms covered negative and positive effects, somatic complaints and interpersonal difficulties. Adolescents were asked to rate how often they had experienced each of the symptoms on the list. A sample item is 'I felt down and unhappy'. Adolescents responded to items by using a four-point Likert-type scale ranging from 1 = n*ever* to 4 = *most of the time*. The total score for the scale was computed as a mean of all the items and it ranged from 1 to 4. The higher the score, the more intensive the symptoms of depression were. The scale was translated into Lithuanian for the research project 'Positive Youth Development' carried out by the Psychology Department of Mykolas Romeris University.

Table 5. *Psychometric Characteristics of Scales Measuring Psychological Difficulties and Aspects of Well-Being*

Scale	Number of items	Cronbach's alpha
Centre for Epidemiological Studies Depression Scale for Children (CES-DC, Faulstich, Carey, Ruggiero, Enyart, & Gresham,, 1986)	20	.85
Peer-Related Loneliness Subscale from *Loneliness and Aloneness Scale for Children and Adolescents* (LACA, Marcoen et. al., 1987)	12	.91
Delinquent Behavior Scale (based on Persson, Kerr, and Stattin, 2007, and Magnusson, Dunér, and Zetterblom, 1975)	12	.79
Rosenberg Self-Esteem Scale (RSES, Rosenberg, 1965)	10	.82
Generalized Self-Efficacy Scale (GSES, Schwarzer and Jerusalem, 1995)	10	.90
Multidimensional Students' Life Satisfaction Scale (MSLSS, Huebner, 2001)	40	.70

The Peer-related Loneliness Subscale from *Loneliness and Aloneness Scale for Children and Adolescents* (LACA, Marcoen et. al., 1987) was used to assess loneliness in adolescence. Variables related to social integration (number of friends, quality of friendships) explain a great degree of the variance in loneliness measured with this scale (Marcoen et. al., 1987). The instrument was translated into Lithuanian after receiving written permission from one of the researchers of the scale development group (Luc Goossens). Two independent translations of the scale were compared to prepare the Lithuanian version. A backwards translation procedure was used to compare this version with the original and a few inconsistencies were resolved.

The scale consists of 12 items. A sample item is 'I think I have fewer friends than others'. Adolescents responded to items by using a four-point Likert-type scale ranging from 1 = *never* to 4 = *often*. The total score for the scale was computed as a mean of all items and it ranged from 1 to 4. The higher the score, the more intensive the feelings of loneliness were.

The *Delinquent Behavior Scale* was used to measure the level of delinquent behaviour of adolescents. The scale was translated for the 'Positive Youth Development' project, based on the study by (Persson et al., 2007) and on a longitudinal project by Magnusson, Dunér and Zetterblom (1975). It covers 12 rule-breaking and substance-abuse behaviours relevant for adolescents. Participants were asked to rate how often they had engaged in each of the behaviours on the list. A sample item is 'Have you participated in a fight over the last year?' Adolescents responded to items by using a five-point scale ranging from 1 = *never* to 5 = *over 10 times*. The total score for the scale was computed as a mean of all items and it ranged from 1 to 5. The higher the score, the more intensive the delinquent behaviour exhibited.

Rosenberg Self-Esteem Scale (RSES, Rosenberg, 1965) measured general self-esteem, as reported by adolescents themselves. A sample item is 'I feel that I have a number of good qualities'. The scale includes 10 items, scored on a four-point Likert-type rating scale, from 1 = *completely disagree* to 4 = *completely agree*. The total score for the scale was computed as a mean of all items and it ranged from 1 to 4. The higher the score, the higher the feeling of self-esteem experienced. The scale was translated into Lithuanian during the 'Positive Youth Development' project.

Generalized Self-Efficacy Scale (GSES, Schwarzer and Jerusalem, 1995) measured general self-efficacy, as reported by adolescents themselves. A sample item is 'I feel that I have a number of good qualities'. The scale includes 10 items, scored on a six-point Likert-type rating scale, from 1 = *completely disagree* to 6 = *completely agree*. The total score for the scale was computed as a mean of all items and it ranged from 1 to 4. The higher the score, the higher the feeling of self-efficacy experienced. The scale was translated into Lithuanian during the 'Positive Youth Development' project.

Multidimensional Students' Life Satisfaction Scale (MSLSS, Huebner, 2001) was used to measure students' satisfaction with life with respect to important life domains: family, friends, school, living environment and self. The long version of the scale includes 40 items, scored on a six-point Likert-type rating scale, from 1 = *strongly disagree* to 6 = *strongly agree*. In this study, the domain-specific subscales were combined to form one global score of life satisfaction, similar to the short one-scale version of this instrument. The total score for the scale was computed as a mean of all items and it ranged from 1 to 6. A higher score reflects higher satisfaction with life. Permission to use the Lithuanian translation of the scale was received from Rita Žukauskienė, who translated the scale together with Laura Simutytė.

As can be seen from Table 5, all of the scales measuring indicators of psychological functioning in this study had adequate psychometric properties. Cronbach's alphas of the scales ranged from .70 to .91 and indicated 'very good' to 'good' internal consistencies.

7.3.4 Data analyses

The main analyses of the study data was carried out in an SEM framework using Mplus 5.2 (Muthén & Muthén, 1998-2007) with Maximum Likelihood estimation. Descriptive analyses and multivariate analyses of variance (MANOVA) were carried out using SPSS 17. Analysis of the data followed three main steps. Firstly, EFA with GEOMIN rotation was applied to identify the latent structure of gender identity and gender-stereotypes scales. The invariance of identified factor structure by gender and grade was tested using multi-group CFA. Pearson's correlation coefficient was then calculated for gender-related scales in order to assess the discriminant validity of gender-identity subscales. The second step in the process of data analysis included the calculation of sample distributions and other descriptive statistics of the main variables in the study and the estimation of gender and grade effects on the variances of gender identity and gender stereotypes scales using MANOVA. Finally, structural equation models were

formed to test the main hypotheses of the study regarding the links between gender-identity dimensions and selected indicators of adolescent psychological functioning.

To evaluate the goodness of fit in an SEM framework, four indicators were used: the chi-square test, Comparative Fit Index (CFI), Root Mean Square of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). There is an ongoing discussion regarding the cut-off points for the fit indices in SEM (e.g. Marsh, Hau, & Wen, 2004). Cut-off values were applied as follows: close to .95 for CFIs, close to .06 for RMSEAs and close to .07 for SRMRs to indicate a good fit between the hypothesised model and observed data, as suggested by Hu and Bentler (1998); and over .90 for CFIs, below .80 for RMSEAs and below .10 for SRMRs to indicate a reasonable model fit (Kline, 2005).

8. RESULTS

8.1 Identifying the structure of gender identity and gender stereotypes of adolescents

To address the first research question of the study about the structure of gender identity, and gender-role stereotypes, data analysis was carried out in the following sequence. Firstly, EFA was run with the items intended to measure multidimensional gender identity and the most suitable factor solution was chosen. A separate EFA was also run with the items measuring gender-role stereotypes. Factor structure for extracted factors was determined based on rotated factor loadings, internal consistency values and item-total (minus item) correlations for each factor. Finally, structural invariance of gender identity and gender stereotypes was assessed across gender and grade groups. In order to increase the parsimony of measurement of extracted factors, parcels were created and CFA was applied to verify an adequate fit of the factors with the parcelled indicators.

EFA was carried out using GEOMIN oblique rotation in both cases. The oblique method of rotation was chosen based on the theoretical assumption that extracted factors may be correlated both for multidimensional gender identity and gender stereotypes. The traditional method for performing exploratory factor analysis with oblique rotation has been PROMAX (Browne, 2001). However, in the Mplus 5.2 statistical package, the default method for oblique rotation is GEOMIN. Based on comments by the program's authors, it is a recommended method for oblique rotation compared to other methods in this package (www.statmodel.com/discussion), for example, one of these comments is that it provides more different fit indices for a given factor solution than other oblique rotation methods. GEOMIN was primarily developed for oblique rotation (Browne, 2001), and it is recommended for use with instruments that are expected not to have many and high cross-loadings (as opposed to completely new instruments, that may have many highly cross-loading items) (Schmitt, 2011). GEOMIN produces a cleaner factor structure that is similar to CFA, compared to other oblique rotation methods (Schmitt, 2011); therefore, it was decided to use it in this study.

8.1.1 Multidimensional structure of gender identity

During the first step, 31 items from a multidimensional gender-identity questionnaire were subjected to EFA analysis. The applicability of factor analysis with the data was first explored. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .88 for gender-identity items, which indicated a high degree of common variance among the items. Bartlett's test of sphericity was statistically significant at $\alpha = .001$, which allowed hypotheses that the items in the population were uncorrelated to be rejected. Both tests confirmed that the data was suitable for factor analysis.

Based on the initial analysis of eigenvalues, EFA was carried out for solutions including one to six factors, since all these solutions had an eigenvalue of more than

1 (see Table 5). Model fit indices for all six solutions were compared. Firstly, the chi-square test was statistically significant in all cases. Since reliance on this test often results in solutions with too many factors of a limited value (Reise, Waller, & Comrey, 2000), this index was not taken into account further. Adding one factor reduced chi-square values significantly in all cases. Since a large sample could be a reason for statistically significant chi-square value differences between the solutions, other model fit indices were considered further.

The smallest number of factors to show CFI, RMSEA and SRMR values that indicate good fit of the model to the data was the five-factor solution. However, the suitability of this solution was not consistently supported by other indicators. Firstly, the fifth factor had a relatively small eigenvalue of 1.12 (considerably smaller than for factors one through four). Moreover, the five-factor solution was also challenged by the scree plot results. The plot showed a strong descending linear trend in eigenvalues starting with the fifth factor (Figure C.1 in Annex C). Such a trend supports the factor solution that precedes the linear descent (Reise et al., 2000), which in our case is the four-factor solution. Therefore, the four-factor solution was further considered.

The fit indices RMSEA and SRMR indicated a good fit of the four-factor model to the data, while CFI was a bit lower than a cut-off .90 for a reasonable fit (Table 5). Therefore, EFA with four factors was repeated after removing redundant items from the item pool (a total of four items, which did not load high enough on the intended factors and showed cross-loadings). The initial pool of items for measuring multidimensional gender identity was somewhat over inclusive, so it is not surprising that four items intended to measure gender typicality were dropped from the structure of retained factors. The results of a repeated four-factor EFA showed a good overall fit of the model to the data: χ^2 (249, N = 530) = 761, p < .001; CFI = .90; RMSEA = .06; SRMR = .04. Three factors in the four-factor solution matched the theoretical constructs described in the model of multidimensional gender identity: gender typicality, gender contentedness and felt pressure for gender conformity. In addition, one new factor was retained. Each of the factors is described below in more detail. The rotated factor loadings for the four factors are shown in Table 6.

Table 6. *Results of Exploratory Factor Analysis for Adolescent Gender Identity Scales Items*

| Number of factors | Model fit statistics | | | | | | | Eigenvalue for factors 1 through 6 |
	χ^2	df	$\Delta \chi^2$	CFI	RMSEA	SRMR	Neg. res. var.	
1	3 263***	434	–	.52	.11***	.11	No	7.55
2	1 872***	404	1 391***	.78	.08***	.07	No	3.36
3	1 380***	372	492***	.83	.07***	.05	No	2.34
4	994***	347	386***	.89	.06***	.04	No	1.70
5	806***	320	188***	.92	.05	.03	No	1.12
6	672***	294	134***	.94	.05	.03	No	1.11

Note. Neg. res. var. – negative residual variances. *** p < .001.

The cut-off point of .40 is commonly used to determine meaningful coefficient weights on a factor in EFA (Henson & Roberts, 2006). However, a less stringent factor loading cut-off point of .30 is mentioned in other sources (Goodwin & Goodwin, 1999). The decisions about the structure of the factors in our study were based on the principle that the items should have coefficients of at least .30 on one of the factors and lower or zero coefficients on the rest of the factors.

The first retained factor reflected the degree to which adolescents felt typical with regard to their own gender group on several important aspects, like character, leisure, opinions, appearance, behaviour, aims and things viewed as important. This factor was accordingly called 'gender typicality' and included eight items. Although initially 12 statements were developed to measure gender typicality, four items were dropped because they did not load strongly enough on this factor. Sample items from gender typicality are: 'I feel similar to other girls (/boys) of my age', 'The way I behave is similar to the way other girls (/boys) of my age behave' (see the full list in Table 7). The item loadings for this factor varied from .49 to .82, which was higher than a commonly used cut-off of .40, and considerably higher than a less stringent cut-off point of .30. Item-total (minus item) correlations for this factor ranged from .52 to .73, which was considerably higher than the 'rule of thumb' figure of .30 proposed by Goodwin and Goodwin (1999).

Table 7. *Factor Loadings for Exploratory Factor Analysis with GEOMIN Rotation of Gender-Identity Items*

Items	Factor loadings			
	Gender typicality	Gender content-edness	Gender oppression	Felt pressure
1. 'The traits of my character are similar to other girls of my age'.	.56			
4. 'The things I do in my spare time are similar to what other girls of my age do in their spare time'.	.49	.14		
7. 'My opinions on most questions are like the opinions of other girls of my age'.	.55			
18. 'The things that are important to me are the same as those to other girls of my age'.	.72			
20. 'The way I behave is similar to the way other girls of my age behave'.	.79			
22. 'I feel similar to other girls of my age'.	.82			
24. 'I look like other girls of my age'.	.62			
29. 'I pursue the same things that other girls of my age pursue'.	.65			
5. 'I like what I am able to do as a girl'.		.74		

Items	Factor loadings			
	Gender typicality	Gender content-edness	Gender oppression	Felt pressure
11. 'I like what I can achieve as a girl'.		**.62**		
23. 'I like my role as a girl'.	.20	**.41**		
3. 'I feel it is unfair that I have to do certain things just because I am a girl'.			**.43**	
8. 'I don't like that certain behaviour is expected of me just because I am a girl'.			**.35**	
27. 'I don't like that some things are only for boys'			**.52**	
16. 'I don't like how others view me as a girl'.		-.23	**.31**	.13
32. 'I don't like that I cannot achieve the things that boys can achieve'.			**.72**	
35. 'I don't like that I cannot do things that only boys can do'.			**.71**	
15. 'My female friends would not like it if I behaved the way that only boys do'.			-.11	**.57**
19. 'My parents would not like it if I took up an activity that is only for boys'.	.12			**.64**
21. 'My male friends would not like it if I behaved the way that only boys do'.				**.65**
25. 'My teachers would not like it if I took up an activity that is only for boys'.		-.14		**.67**
31. 'My male friends would not like it if I took up an activity that is only for boys'.				**.73**
33. 'My female friends would not like it if I take up an activity that is only for boys'.				**.76**
37. 'My parents would not like it if I behaved the way that only boys do'.			.12	**.76**
39. 'My teachers would not like it if I behaved the way that only boys do'.			.15	**.72**
40. 'I would not like it if someone said I was acting like a boy'.		.19		**.57**
42. 'I don't like girls who act like boys'.		.25		**.61**
Dropped items:				
2. 'The kinds of things I'm good at are similar to what other girls of my age are good at'.	.36	.27		
10. 'I devote the same amount of attention to my looks as other girls of my age'.	.32	.24		-.12
34. 'I feel that I fit in with other girls of my age'.	.31	.32		
43. 'I am a good example of being a girl'.	.10	.46		.16

Another retained factor reflected perceived pressure from peers, parents, teachers and self to conform to gender normative behaviours and activities. This factor was called 'felt pressure' and included 10 items (out of 10 initially developed to measure this pressure). Examples are: 'My parents would not like it if I took up an activity that is only for boys'; 'My male friends would not like it if I behaved the way that only boys do' (full list in Table 7). The item loadings for this factor varied from .57 to .73, higher than a commonly used cut-off of .40, and considerably higher than a less stringent cut-off point of .30. Item-total (minus item) correlations for this factor ranged from .60 to .71, which in all cases was considerably higher than the .30 rule of thumb.

Two factors in the middle of Table 7 consisted of items, initially designated to measure the construct of gender contentedness, which was assumed to be one-dimensional. Contrary to expectations, the results showed that the construct was divided into two factors. The first factor reflected adolescents' satisfaction with, and unproblematic acceptance of, their respective gender roles. This factor was called 'gender contentedness', since it was semantically close to the initial definition of the gender contentedness construct. Out of nine items initially developed to measure gender contentedness, three loaded on this factor. Examples are: 'I like what I can achieve as a girl' and 'I like my role as a girl' (Table 7). The item loadings for this factor varied from .41 to .74, which was higher than a commonly used cut-off of .40, and considerably higher than a less stringent cut-off point of .30. Item-total (minus item) correlations ranged from .43 to .59, which was considerably higher than the .30 rule of thumb.

The rest of the items initially developed to measure gender contentedness loaded on the factor, which reflected discontent with gender-based social limitations, restrictions and discrimination. This factor was accordingly called 'gender oppression' and included items like: 'I don't like that some things are only for boys', 'I feel it is unfair that I have to do certain things just because I am a girl' (Table 7). The item loadings for this factor varied from .31 to .72. Two of the six items loaded slightly lower than the cut-off point of .40 (.31 and .35), but still above a common less stringent threshold of .30 (Goodwin & Goodwin, 1999). Since these items did not have higher cross-loadings on other factors, and they did not diminish the internal consistency of the scale as measured by Cronbach's alpha (see the table in Annex C), it was decided to retain the two items in the factor. Item-total (minus item) correlations for this factor were higher than the .30 rule of thumb (from .35 to .52), except for the lowest-loading item, which had a correlation of .26 with the sum of the other items, but which, nevertheless, did not reduce the internal consistency of the factor.

To summarise, the four-factor solution for the pool of 27 items showed a good fit, identifying four dimensions of gender identity: gender typicality, gender contentedness, gender oppression and felt pressure for gender normativity. Since before the empirical stage of the study it was not expected for the dimension of gender oppression to emerge, the hypotheses of the study did not include predictions regarding the links of this dimension with other study variables. However, after the results of factor analysis were obtained the hypotheses of the study were revised to include predictions regarding the dimension of gender oppression. Revised hypotheses are presented at the end of the next sub-chapter.

8.1.2 Relationships among gender-identity dimensions

Based upon previous studies, it was expected that gender-identity dimensions were positively correlated with one another, which was partly supported by the findings. However, factor analysis retained one new dimension in our data, which was an unexpected finding; therefore, we will discuss its links with the other dimensions in more detail. The correlation matrix for gender-identity dimensions (factors) is presented in Table 8.

Table 8. *Correlations of Factors in Four-Factor Exploratory Factor Analysis with GEOMIN Rotation of Gender-identity Items*

	Measures	GT	GC	GO	FP
Adolescent gender identity	Gender typicality (GT)	–			
	Gender contentedness (GC)	.34	–		
	Gender oppression (GO)	-.04	-.11	–	
	Felt pressure (FP)	.39	.23	-.17	–

Note. No information on statistical significance of correlations between the factors is provided by the program.

Firstly, the expected relationship was identified between the factors indicating gender typicality and felt pressure – a substantial positive correlation was found between these dimensions. Factor inter-correlations also showed that the factors of gender contentedness and gender oppression were fairly independent of each other – the size of their correlation indicated that the relationship was weak (Table 8). Despite its weakness, the link between the two dimensions was negative, which suggested that the more adolescents were content with their gender role, the less they were inclined to feel oppressed by membership of their gender category. The independence of the two dimensions was further supported by their differential links to other gender-identity dimensions – gender typicality and felt pressure. While gender contentedness had substantial positive links to both gender typicality and felt pressure, gender oppression had no relationship with gender typicality and a weak negative correlation with felt pressure (Table 8).

To generalise, our data showed weak to moderate relationships between retained gender-identity dimensions (factors). Gender typicality, gender contentedness and felt normative pressure were all positively interrelated. The dimension of gender oppression showed the tendency for weak negative links with gender contentedness and felt pressure. The results also showed that gender contentedness and gender oppression were largely independent dimensions of gender identity; there was only a weak tendency for a negative relationship between the two.

Based on the results of factor analysis and intercorrelations between the retained factors, the hypotheses of the study were reviewed to include predictions regarding the dimension of gender oppression. In particular, the third hypothesis (H3) of the study was complemented by a prediction that higher gender oppression was related to a higher

level of psychological difficulties and a lower level of well-being. The formulations of the other three hypotheses remained unchanged.

8.1.3 Structure of gender stereotypes

Similar to gender-identity measure, EFA was also carried out with 12 items developed to measure adolescent gender-role stereotypes. Firstly, the applicability of factor analysis with the data was explored. KMO measure of sampling adequacy was .86, which indicated a high degree of common variance among gender stereotype items. Bartlett's test of sphericity was statistically significant at $\alpha = .001$, which allowed the hypotheses that the items in the population were uncorrelated to be rejected. Both tests confirmed that the data was suitable for factor analysis.

Table 9. *Results of Exploratory Factor Analysis for Adolescent Gender-Role Stereotype Items*

Number of factors	Model fit statistics							Eigenvalue for factors 1 and 2
	χ^2	*df*	$\Delta \chi^2$	CFI	RMSEA	SRMR	Neg. res. var.	
1	193***	54	–	.88	.07**	.05	No	3.77
2	116***	43	77***	.94	.06	.04	No	1.25

Note. Neg. res. var. – negative residual variances.** $p < .01$, *** $p < .001$.

Based on the initial analysis of eigenvalues, EFA was carried out for the solutions with one and two factors, since they had an eigenvalue above 1 (see Table 9). Comparison of fit indices showed a better fit for a model with two factors, but the fit for a one-factor solution was also reasonable. In addition, the second factor had a relatively small eigenvalue (1.25 compared to 3.77 for the first factor), and the scree plot results suggested a one-factor solution (Figure C.2 in Annex C). A closer look at the factor structure showed that in the case of two factors, the first four items loaded on one factor, and other eight out of 12 items loaded on the other factor, but this differentiation was not easily explained in a theoretically meaningful way. Since the pool of items was designed to be over inclusive for the gender-role stereotypes scale, and since eight out of 12 items loaded on the same factor, it was decided to further consider a one-factor solution.

Rotated loadings for one factor showed that two out of 12 items did not load strongly enough on the factor (below .40), thus, they were dropped and EFA was repeated with 10 items. In this case, only the first factor had an eigenvalue above 1, and the fit indices indicated a good fit of the model to the data: χ^2 (35, $N = 530$) = 117, $p < .001$; CFI = .92; RMSEA = .07; SRMR = .04. The item loadings for the single factor were all sufficient and varied from .43 to .67 (Table 10). Item-total (minus item) correlations ranged from .34 to .55 and were also sufficient (see the table in Annex C). Thus, a one-dimensional structure of gender-role stereotypes measure in this study was supported by factor analysis.

Table 10. *Factor Loadings for Exploratory Factor Analysis with GEOMIN Rotation of Gender Stereotypes Items*

Items	Factor loadings
9. 'A guy should show his weakness less often than a girl'.	.43
12. 'Tears are more inappropriate for boys than for girls'.	.53
13. 'It is more important for a girl to be decent and keep a good reputation than for a boy'.	.40
14. 'A girl has to try to be kind and helpful to others'.	.44
17. 'Disobedience and rebellious behaviour is more inappropriate for girls than for boys'.	.51
26. 'In difficult situations a guy has to take all the initiative and responsibility'.	.58
28. 'Boys should take more care about their physical strength and resistance than girls'.	.59
36. 'Girls rely on their feelings and emotions more than guys do'.	.50
38. 'Swearing and fighting is more inappropriate for girls than for boys'.	.56
41. 'It is more important for guys to know technical stuff and cars than for girls'.	.67

8.1.4 Gender and grade effects on the structure of gender identity and gender stereotypes

Multi-group CFA was applied to test the first hypothesis (H1) of the study that the identified structure of gender identity and gender-role stereotypes stayed invariant by gender and age. Before that, in order to increase parsimony of the models, and to achieve higher reliability and better distributional properties of latent variables (Reise et al., 2000), parcels were created for each of the subscales of the gender identity and gender stereotypes scales. Two to four parcels per latent variable were created based on item–item covariances and conceptual similarity between the items. CFA was run to check the fit of the model with parcelled items. Results of the CFA indicated good overall fit of the implied factor structure to the data: χ^2 (94, $N = 530$) = 237, $p < .001$; CFI = .95; RMSEA = .05; SRMR = .04. The loadings for the parcelled measurement model for gender identity and stereotypes are presented in Figure C.3 in Annex C.

In order to test if the structure of the factors for gender identity and gender stereotypes remained similar across gender groups, that is, to test for partial measurement invariance (strong factorial invariance; Meredith, 1993), two models were compared (Holmbeck, 1997): constrained and unconstrained. For the constrained condition, Mplus 5.2 default options were applied: intercepts and factor loadings constrained to be equal across groups; residual variances free; factor means were zero for girls and free for boys (Muthén & Muthén, 1998). For the unconstrained condition, factor loadings were released to vary across the groups, and factor variances were fixed at 1. The fit indices for the two models are presented in Table 11. The chi-square difference between the models is significant at $\alpha = .001$. Constraining the paths to be equal significantly reduced the fit of the overall model to the data, thus indicating that some paths of the

model may differ for girls and boys. While, the other fit indices for the constrained model stayed similar to the unconstrained model and indicated a good fit of the former to the data. Simulation studies show that chi-square is too sensitive when evaluating measurement invariance in large samples ($N > 300$) and complex models, therefore, it is not considered to be the best indicator of measurement invariance (Chen, 2007; Cheung & Rensvold, 2002; Vandenberg & Lance, 2000). Based on recommendations provided by Chen (2007), a change of $\geq .010$ in CFI, supplemented by a change of $\geq .015$ in RMSEA or a change of $\geq .030$ in SRMR was considered to indicate non-invariance in our study. Similar cut-offs were applied in other studies, for example, Klimstra, Crocetti, Hale, Fermani, & Meeus (2011).

Further analysis was carried out to determine if particular factors show invariance across groups. Analysis was carried out constraining factor loadings for one factor at a time. The model with loadings constrained for one factor was compared to the unconstrained model. The comparisons (Table 11) showed that three of the factors (gender typicality, gender contentedness and felt pressure), when constrained to be invariant across the two gender groups, did not result in a significant increase in the chi-square value.

Table 11. *Multi-group Analysis of Factor Structure Invariance by Gender (with Parcels)*

Model	Model fit statistics					
	χ^2	*df*	$\Delta \chi^2$	CFI	RMSEA	SRMR
Constrained	423***	210	–	.92	.06	.07
Unconstrained	383***	199	40***	.93	.06	.07
Loadings constrained *only* for:						
GT (typicality)	389***	202	5	.93	.06	.07
GC (contentedness)	385***	200	1	.93	.06	.07
GO (oppression)	399***	201	15***	.93	.06	.07
FP (pressure)	388***	201	4	.93	.06	.07
GS (stereotypes)	401***	202	17***	.93	.06	.06

Note. *$p < .05$, ** $p < .01$, *** $p < .001$.

The other two factors – gender oppression and gender stereotypes – when constrained to be invariant for boys and girls, did result in a significant increase in the chi-square value. However, the other fit indices for the models with constraints on gender oppression and gender stereotypes did not indicate measurement invariance and stayed similar overall to the unconstrained model, which indicated a good fit of the constrained models to the data. Overall, these results suggest that there is adequate invariance of the identified factor structure across gender groups.

Finally, factor invariance was tested across different grades (ninth, tenth and eleventh). Grades were chosen as an approximation of age criteria, since ages can vary inside a class, and the distribution of different age groups inside a class can change over a school year. Grade invariance was tested using the same procedure as for gender

invariance (Table 12). Comparison of the model with constrained factor loadings across grades showed no significant chi-square value change. Other indices of model fit also did not show change greater than the set cut-off points. Thus, the constrained model fit the data just as well as the unconstrained, which provided support for factor invariance across different grades.

Table 12. *Multi-group Analysis of Factor Structure Invariance by Grade (with Parcels)*

Model	Model fit statistics					
	χ^2	*df*	$\Delta \chi^2$	CFI	RMSEA	SRMR
Constrained	552***	326	–	.93	.06	.07
Unconstrained	519***	304	33	.93	.06	.06

Note. *$p < .05$, ** $p < .01$, *** $p < .001$.

Overall, the analysis provided support for the first hypothesis and showed that the structure of gender identity and gender stereotypes is stable for adolescents across gender groups and different grades. Thus, the same four-dimensional structure for the construct of gender identity and one-dimensional structure for gender stereotypes is applied in further analysis.

8.1.5 Links between gender-identity dimensions and other gender-related constructs

To test the validation hypothesis (H2) regarding the links between gender-identity dimensions and other gender-related constructs in the study, Pearson correlation analysis was applied. Discriminant validity of gender-identity dimensions was operationalised as positive, but not noticeably high, correlations with trait sex typing, adherence to adolescent gender ideologies and gender-role stereotypes. Validation analysis was carried out separately for gender groups (Table 13 presents the results for girls, and Table 14 presents the results for boys), since some constructs (e.g. feminine traits, masculine traits) were easier to interpret in separate analysis, and two of the questionnaires were completed by one gender only – AFIS by girls and AMIRS by boys.

In line with the prediction, some positive correlations were observed between gender-identity dimensions and trait sex typing of the self. In particular, higher self-attributions of feminine traits were related to higher gender typicality and higher gender contentedness for girls (Table 13). A positive link between masculine traits and gender contentedness was weak, though statistically significant for girls. For boys, positive links between self-attributed masculine traits and gender contentedness was slightly higher, while the statistically significant link between feminine traits and gender contentedness was weak.

Table 13. *Correlations of Gender Identity Subscales and Other Gender-Related Constructs (Girls: n=248)*

Measures		Trait sex typing of self		Adolescent Femininity Ideology Scale		Gender-role stereotypes
		Masculine traits	Feminine traits	ORB	ISR	
Adolescent gender identity	Gender typicality	.09	.27***	-.01	.19**	.41***
	Gender contentedness	.15*	.37***	-.14*	.08	.33***
	Gender oppression	.09	-.05	.22***	.26***	.16*
	Felt pressure	-.10	.10	.16*	.30***	.58***

Note. ISR – inauthentic self in relationships, ORB – objectified relationship with body.
*p < .05, ** p < .01, *** p < .001.

Statistically significant links were also observed between gender-identity dimensions and adolescent gender ideologies. All but one of these links had a positive direction, as expected. In particular, for girls, higher inauthenticity in relationships was related to higher gender typicality, but also stronger felt gender oppressions and stronger felt pressure to conform to gender norms. A stronger objectified relationship with the body was also positively related to gender oppression and felt pressure, but negatively related to gender contentedness. Bearing in mind that the measure used for feminine ideology covers only problematic, negative aspects of femininity; a negative correlation with gender contentedness is not surprising. Among boys, a higher masculinity ideology in relationships was related to higher gender typicality, stronger gender oppression and higher felt pressure to conform to gender norms. Statistically significant links varied from weak to moderate in both gender groups.

Table 14. *Correlations of Gender Identity Subscales and Other Gender-related Constructs (Boys: n=282)*

Measures		Trait sex typing of self		AMIRS	Gender-role stereotypes
		Masculine traits	Feminine traits		
Adolescent gender identity	Gender typicality	.09	-.04	.35***	.37***
	Gender contentedness	.23***	.12*	.04	.46***
	Gender oppression	-.04	-.06	.14*	-.03
	Felt pressure	-.06	-.10	.23***	.55***

Note. AMIRS – Adolescent Masculinity Ideology in Relationships Scale.
*p < .05, ** p < .01, *** p < .001.

As predicted, gender-role stereotypes were also positively linked to gender-identity dimensions. The links were significant and ranged from weak to moderate for both

girls and boys, excepting gender oppression for boys, which had no link to gender-role stereotypes. Gender stereotypes had strongest links with felt pressure for gender normativity, and correlations of .58 for girls and .55 for boys suggest that the concepts of felt pressure and gender stereotypes, as measured in this study, are close. However, since intra subscale item correlations (i.e. Cronbach's alphas of .90 and .79, respectively) are systematically higher on both scales than the inter subscale item correlations, there is empirical support for two rather than one construct (Clark & Watson, 1995).

To generalise, tests of the second hypothesis of the study supported discriminant validity of gender-identity dimensions. Gender-identity dimensions are positively related to, but do not overlap with, other gender-related constructs – trait sex typing, adolescent gender ideologies and gender-role stereotypes.

8.2 Descriptives, correlations, gender and grade effects on main study variables

8.2.1 Distributions of all study variables

The univariate normality of the data was first examined. As can be seen from Table 15, the majority of gender-related variables were slightly, mostly negatively, skewed, with skewness ranging from 0.01 to -0.77. Such levels of skewness are not considered high (Kline, 2010). The Shapiro-Wilk's test of normality was applied to see if gender-related variables differed significantly from the normal distribution (table in Annex D). Analyses showed significant difference in most variables, however, the test is considered sensitive to even minor differences from the normal distribution in large samples (Kline, 2010). Since the values for the statistic were all close to 1 (for gender-related variables they ranged from .94 to .99), the distributions of gender-related variables in our study could be considered close to normal. Analysis of normality plots revealed no true outliers in gender-related scales.

Similar tendencies were observed for most of the psychological-functioning indicators measured in our study. As seen from Table 16, the majority of psychological-functioning variables were slightly skewed, with skewness ranging from -0.12 to 1.00, which is not considered to be high (Kline, 2010). The Shapiro-Wilk's test of normality (see detailed results in the table in Annex D) again showed significant differences from normal distribution in most of psychological-functioning variables. However, the majority of the values of the statistic were close to 1 (ranging from .89 to .99), which suggests that distributions of the indicators of psychological functioning in this study were close to normal. Analysis of normality plots for psychological-functioning variables revealed true outliers in two scales: one in the self-esteem scale and five in the self-efficacy scale. After true outliers were removed from the database, the skewness and kurtosis scores, and the Shapiro-Wilk's statistic, improved for both variables (skewness and kurtosis became closer to 0 (see Table 16), while the Shapiro-Wilk's score became closer to 1, see the table in Annex D). Due to the improved distributional properties of self-esteem and self-efficacy scales, true univariate outliers were removed from further analyses with these scales.

Overall, the inspection of univariate normality of the data confirmed the applicability of parametric statistics for the scales in this study.

Table 15. *Descriptives for Measures of Gender Identity, Stereotypes and Sex Typing (N=530)*

	Measures	M	SD	Mdn	Range	Skewness	Kurtosis
Adolescent gender identity	Gender typicality	3.21	0.72	3.25	1.00–5.00	-0.41	-0.04
	Gender contentedness	4.02	0.69	4.00	1.33–5.00	-0.77	0.83
	Gender oppression	2.87	0.69	2.83	1.00–4.67	0.04	0.04
	Felt pressure	3.45	0.83	3.50	1.00–5.00	-0.33	-0.11
Gender-role stereotypes		3.56	0.68	3.60	1.20–5.00	-0.49	0.12
Trait sex typing	Masculine traits	2.59	0.50	2.60	1.20–3.80	-0.17	-0.25
	Feminine traits	2.57	0.38	2.60	1.40–3.60	-0.18	-0.05
Adolescent Femininity Ideology Scale (AFIS)	Objectified relationship with body	3.35	0.90	3.33	1.00–5.78	0.18	-0.10
	Inauthentic self	3.38	0.71	3.50	1.00–5.38	-0.27	0.14
Adolescent Masculinity Ideology in Relationships Scale (AMIRS)		2.43	0.35	2.50	1.50–4.00	0.01	1.33

Note. Gender identity and gender stereotypes were measured on a scale of 1 to 5 (*completely disagree–completely agree*). Higher scores indicate higher gender typicality, higher gender contentedness, higher gender oppression, increased felt pressure and higher adherence to gender-role stereotypes.

Trait sex typing scales were measured on a scale of 1 to 4 (*not at all like me–very much like me*). Higher scores indicate stronger self-attribution of feminine and/ or masculine traits.

AFIS is filled in by girls and is measured on a scale of 1 to 6, AMIRS is filled in by boys and is measured on a scale of 1 to 4 (*completely disagree–completely agree*). Higher scores indicate a more objectified relationship with the body and higher inauthenticity for girls, and higher adherence to masculinity ideology in relationships for boys.

For AFIS, the standard error of skewness is 0.16, the standard error of kurtosis is 0.31, and for AMIRS, the respective values are 0.15 and 0.29. For all other variables, the standard error of skewness is 0.11 and the standard error of kurtosis is 0.21.

Table 16. *Descriptives for Indicators of Positive and Negative Aspects of Psychological functioning (N=530)*

	Measures	M	SD	Mdn	Range	Skewness	Kurtosis
Indicators of difficulties	Depression (D)	2.17	0.45	2.90	1.00–4.00	0.20	-0.22
	Loneliness (L)	1.63	0.60	1.44	1.00–3.83	1.00	0.44
	Delinquent behaviour (DB)	2.01	0.66	1.92	1.00–5.00	0.93	1.23
Indicators of well-being	Self-esteem (SES)	2.94	0.45	2.90	1.00–4.00	-0.12	0.29
	Self-esteem (no true outliers)	*2.94*	*0.44*	*2.90*	*1.70–4.00*	*0.00*	*-0.16*
	Self-efficacy (SEF)	2.99	0.50	3.00	1.00–4.00	-0.37	2.05

Measures		M	SD	Mdn	Range	Skewness	Kurtosis
Indicators of well-being	*Self-efficacy (no true outliers)*	3.00	0.50	3.00	1.40–4.00	0.15	0.76
	Satisfaction with life domains (SLD)	4.34	0.60	4.37	2.15–5.88	-0.24	-0.04

Note. D is measured on a scale of 1 to 4 (*never–very often*), L, SES and SEF are measured on a scale of 1 to 4 (*completely disagree–completely agree*), DB is measured on a scale of 1 to 5 (*never–over 10 times*), and SLD is measured on a scale of 1 to 6 (*completely disagree–completely agree*). Higher scores indicate more difficulties on negative indicators and higher well-being on positive indicators of psychological functioning.
For all variables, the standard error of skewness is 0.11 and standard error of kurtosis is 0.21.

8.2.2 Gender and grade effects on gender identity and stereotypes

MANOVA was used to test for separate and combined gender and grade effects on gender-identity dimensions and gender-role stereotypes. The results indicated an overall significant effect of gender on gender identity and stereotypes ($F(5, 519) = 42.11$, $p < .001$, $\eta^2 = .289$). The effect of grade was not significant ($F(10, 1040) = 1.48$, $p = .140$, $\eta^2 = .014$), just as the combined effect of gender X grade ($F(10, 1040) = 0.38$, $p = .955$, $\eta^2 = .004$). The estimated effect sizes show that gender accounts for close to a third of the variance in gender-identity dimensions and gender-role stereotypes of adolescents. In contrast, grade accounts for only 1% of variance, and its interaction with gender accounts for an even smaller share of the variance of gender identity and gender-stereotypes variables. The gender and grade effects of the MANOVA results are presented in Tables 17 and 18, along with the descriptive statistics for dependent variables.

Table 17. *Gender Effects on Means of Gender-Identity Dimensions and Gender-Role Stereotypes (Girls: n = 248, Boys: n = 282)*

Sex	Girls		Boys		F	Partial η^2
	M	SD	M	SD		
Gender typicality	3.09	0.73	3.32	0.68	14.25***	.03
Gender contentedness	3.95	0.75	4.09	0.63	5.16*	.01
Gender oppression	3.17	0.65	2.61	0.61	97.22***	.16
Felt pressure	3.09	0.82	3.78	0.67	106.00***	.17
Gender-role stereotypes	3.40	0.71	3.72	0.60	29.26***	.05

Note. *$p < .05$, ** $p < .01$, *** $p < .001$.

The findings on gender effects (Table 17) indicated significantly higher felt gender typicality, higher gender contentedness, higher felt pressure and stronger adherence to stereotypical attitudes towards gender roles among boys compared to girls, but more felt gender oppression by girls than by boys. Although statistically significant, gender

accounted for a minor share of variance in gender typicality, gender contentedness and gender stereotypes (from 1% to 5%, respectively). However, the effect was much stronger for gender oppression and felt pressure to conform to gender norms. Gender accounted for around one sixth of variance in gender oppression and felt pressure.

A different situation emerged in the findings regarding grade effects (Table 18).

Table 18. *Grade Effects on Means of Gender-Identity Dimensions and Gender-Role Stereotypes (Ninth grade: n = 151, Tenth grade: n = 196, Eleventh grade: n = 182)*

Grade	Ninth		Tenth		Eleventh		F	Partial η²
	M	*SD*	M	SD	M	SD		
Gender typicality	3.16	0.72	3.24	0.73	3.24	0.70	0.49	.002
Gender contentedness	3.91	0.74	4.01	0.70	4.14	0.62	4.95**	.02
Gender oppression	2.90	0.66	2.81	0.69	2.93	0.71	0.46	.002
Felt pressure	3.38	0.81	3.57	0.80	3.40	0.83	1.24	.01
Gender-role stereotypes	3.50	0.65	3.60	0.69	3.59	0.68	0.73	.003

*Note. *p < .05, ** p < .01, *** p < .001.*

The only statistically significant difference was found in gender contentedness – adolescents in higher grades expressed more gender contentedness. Although statistically significant, gender accounted for only 2% of variance on this variable. Statistically significant differences were not observed with regard to gender typicality, gender oppression, felt pressure and gender-role stereotypes between ninth, tenth and eleventh grade students.

To summarise, gender was a more important factor than grade when analysing the variances of gender-identity dimensions and gender-role stereotypes. Boys had higher scores than girls on the gender-role stereotypes scale and all gender-identity dimensions, except for gender oppression, which was higher for girls. Gender had the strongest effect on the scores of gender oppression and felt pressure, while for the rest of the variables, the effect of gender was minor. It was also observed that higher gender contentedness was expressed by adolescents in higher grades, but this effect was minor.

8.2.3 Correlations between all study variables

Zero-order correlation analysis was carried out with all variables in the study. The correlation matrix for the whole sample is presented in Table 19. Here, the relationships in the main focus of the study are briefly reviewed – the links between gender-identity dimensions and indicators of psychological difficulties and well-being. Correlations between gender-role stereotypes and psychological-functioning indicators are also reviewed below.

The results in Table 19 show that gender contentedness had the most pronounced direct connections to positive and negative psychological-functioning indicators among all gender-identity dimensions. Higher gender contentedness was related to

less depressive symptoms and lower loneliness. With regard to positive psychological functioning, higher gender contentedness was related to higher self-esteem, higher self-efficacy and stronger satisfaction with important life domains. The strength of these statistically significant correlations ranged from weak to moderate (absolute values from .14 to .39). Direct relationships were not found between gender contentedness and delinquent behaviour.

Gender oppression had fewer links to positive and negative psychological-functioning indicators compared to gender contentedness, and all of them were in the opposite direction. Higher gender oppression was related to more depressive symptoms and stronger feelings of loneliness, but also to lower self-esteem and less satisfaction with important life domains. The strength of these statistically significant correlations ranged from weak to moderate (absolute values from .20 to .37). Direct relationships were not found between gender contentedness and delinquent behaviour, or self-efficacy.

Gender typicality was statistically significantly related to three indicators of psychological functioning in this study. Lower gender typicality was related to more depressive symptoms and stronger feelings of loneliness. Higher gender typicality was related to stronger satisfaction with important life domains. The strength of these statistically significant correlations was weak (absolute values from .17 to .25). Direct relationships were not found between gender typicality and delinquent behaviour, self-esteem and self-efficacy.

Felt pressure to conform to gender norms had the smallest number of direct links with psychological-functioning indicators. Higher felt pressure was related to lower depressive symptoms and weaker feelings of loneliness. Though statistically significant, observed links were weak (-.12 and -.11, respectively). No direct links were observed between felt pressure and any of the positive psychological-functioning indicators in the study.

Similarly, gender-role stereotypes only had two significant correlations to psychological-functioning indicators. Higher adherence to gender-role stereotypes was related to weaker feelings of loneliness, but more intensive delinquent behaviour. Though statistically significant, both links were weak (-.12 and .12, respectively). Direct links were not observed between gender-role stereotypes and positive psychological-functioning indicators.

To summarise, most of the correlations of gender identity and gender-role stereotypes with indicators of negative and positive psychological functioning were in the expected direction: higher gender typicality and higher gender contentedness were related to lower scores on negative and higher scores on positive indicators of psychological functioning, while gender oppression and psychological-functioning indicators had the reversed links. However, in contrast to the expected positive direction, the links between felt pressure and indicators of negative psychological functioning (depression, loneliness) were negative, just as there was a negative link between gender-role stereotypes and loneliness. The strength of the associations in all cases varied from weak to moderate. The two dimensions that had the strongest and most numerous statistically significant links with psychological-functioning indicators were gender contentedness and gender oppression.

Table 19. *Zero-order Correlations between the Study Variables (N = 524)*

		GT	GC	GO	FP	GRS	MT	FT	ORB	IS	AMIR	D	L	DB	SES	SEF	SLD
Adolescent gender identity	Gender typicality (GT)	---															
	Gender contentedness (GC)	.37***															
	Gender oppression (GO)	-.03	-.12**														
	Felt pressure (FP)	.37***	.26***	-.16***													
Gender-role stereotypes (GRS)		.40***	.39***	-.04	.59***												
Trait sex typing	Masculine traits (MT)	.13*	.28***	-.05	.01	.08											
	Feminine traits (FT)	-.04	.12*	.19***	.25***	-.05	.11*										
Adolescent femininity ideology scale (AFIS)	Objectified relationship with body (ORB)	-.02	-.15*	.22***	.15*	.08	-.16*	.03									
	Inauthentic self (IS)	.16*	.05	.25***	.28***	.28***	-.05	.23***	.20***								
Adolescent masculinity ideology in relationships scale (AMIRS)		.35***	.04	.14*	.23***	.28***	.09	-.17**	---	---							
Indicators of psychological difficulties	Depression (D)	.17***	.24***	.37***	-.12*	-.04	.20***	.16***	.46***	.26***	-.04						
	Loneliness (L)	.24***	.34***	.28***	-.11*	-.12*	.19**	-.05	.21**	.19*	-.13*	.50***					
	Delinquent behaviour (DB)	.07	.04	-.03	.05	.12*	.09	-.02	.10	.04	.21***	.09*	-.07				
	Self-esteem (SES)	.08	.29***	.28***	.03	.07	.32***	-.04	-.54***	-.27***	-.04	.63***	.39***	-.004			
Indicators of well-being	Self-efficacy (SEF)	.03	.25***	-.03	.00	.06	.27***	.13*	-.20**	-.08	.05	.26***	.31***	.07	.34**		
	Satisfaction with life domains (SLD)	.25***	.39***	.20***	.04	.06	.29***	.22***	-.40***	-.09	-.03	.45***	.51***	.17***	.44**	.40**	

Note. Scales OBD and IS were filled in by girls only, and AMIRS by boys only. *p < .05, ** p < .01, *** p < .001.

8.2.4 Identifying direct and indirect links between gender identity and psychological difficulties and well-being

From the correlation matrix for all study variables (Table 19), we can see that most of the correlations of gender identity and gender-role stereotypes with indicators of psychological functioning were in the expected direction: higher gender typicality and higher gender contentedness were related to lower scores on negative and higher scores on positive indicators of psychological functioning, while gender oppression and psychological-functioning indicators had the reversed links. In addition, felt pressure and gender stereotypes were negatively related to some of negative psychological-functioning indicators. The two dimensions, that had the strongest and most numerous statistically significant links with psychological-functioning indicators, were gender contentedness and gender oppression.

However, the results from correlational analysis do not provide information about unique links between gender-identity dimensions and psychological-functioning indicators. In this analysis shared variances between gender-related variables, and between psychological-functioning indicators, are not accounted for, which makes the correlations between the variables of interest potentially biased. In order to test the third hypothesis (H3) and to identify the unique links between gender-identity dimensions and particular psychological-functioning indicators, an SEM framework was applied.

Before constructing SEM models, in addition to the univariate data screening described in the subsection 2.1, a couple of necessary steps for screening multivariate aspects of the data were taken, based on Kline (2010). Firstly, multivariate outliers were identified in the data. The Mahalanobis distance (D) statistic was applied to calculate the distance between an individual set of scores on all variables of interest and the sample means for these variables. A conservative level of statistical significance was used ($\alpha = .001$) (Kline, 2010) to determine cases with the largest distance from the sample means. Analysis revealed there were seven multivariate outliers. SEM models, including moderation analyses, were tested both with and without these outliers. Since there were no observable differences in the results, the multivariate outliers were kept in the analyses in order to preserve power and to make sure that atypical cases are not excluded from the analyses.

In addition, the level of multicollinearity between the main study variables was analysed. Since there are no exact methods for identifying too high multicollinearity in SEM, intercorrelations between latent factors were simply observed. Intercorrelations were not close to 1 or were not higher than the suggested rule of thumb of .85 (Kline, 2010), however, there were high correlations. The highest correlation was observed between latent factors measuring felt pressure and gender-role stereotypes ($r = .73$). Other high correlations between latent factors were: gender contentedness correlated with gender-role stereotypes at .59 and with satisfaction with life at .58, depressive symptoms correlated with loneliness at .53. To further analyse the level of multicollinearity between the main study variables, scales for all variables (as proxies for latent factors) were tested using variance inflation factor (VIF) as an indicator of the level of multicollinearity. The analysis showed there were no cases of multicollinearity,

since the values of VIF ranged from 1.04 to 1.75 (see the table in Annex E) and did not exceed the critical value of 4 (Čekanavičius & Murauskas, 2002). Nevertheless, since the correlation between felt pressure and gender-role stereotypes was high in this study, the models discussed below were tested both with and without controlling for gender-role stereotypes. Important differences in the links between gender identity and psychological functioning, with and without controlling for gender stereotypes, are reported at the end of the Results section.

8.2.4.1 Estimating unique effects of gender-identity dimensions

The third hypothesis (H3) of the study predicted that higher gender typicality and higher gender contentedness would be related to lower levels of psychological difficulties and higher well-being, while higher felt pressure, higher gender oppression and stronger adherence to gender stereotypes would be related to higher levels of psychological difficulties and lower well-being. To test this hypotheses, an SEM model with direct paths from gender-identity latent variables (gender typicality, gender contentedness, gender oppression and felt pressure) and gender-role stereotypes (in order to control for their effects) to psychological-functioning latent variables was constructed. The model was constructed separately for indicators of difficulties in psychological functioning (depressive symptoms, loneliness and delinquent behaviour) and indicators of well-being (self-esteem, self-efficacy and satisfaction with life) in order that the models would remain parsimonious and to avoid high complexity.

The analysis confirmed a good fit for both specified models to the data. In the case of indicators of difficulties in psychological functioning, the model-fit indices were: $\chi^2(296, N = 530) = 471$, $p < .001$; CFI = .93; RMSEA = .05; SRMR = .05. As illustrated in Figure 2, gender contentedness and gender oppression had significant direct effects on depressive symptoms and loneliness. Higher gender contentedness was related to lower scores on both psychological-functioning indicators, while gender oppression had a positive relationship with both depressive symptoms and loneliness. In addition, gender-role stereotypes had a significant direct effect on delinquent behaviour – higher adherence to stereotypes was related to more delinquency. Statistically significant links in the model in Figure 2 are depicted with black arrows. Insignificant links are depicted with grey arrows.
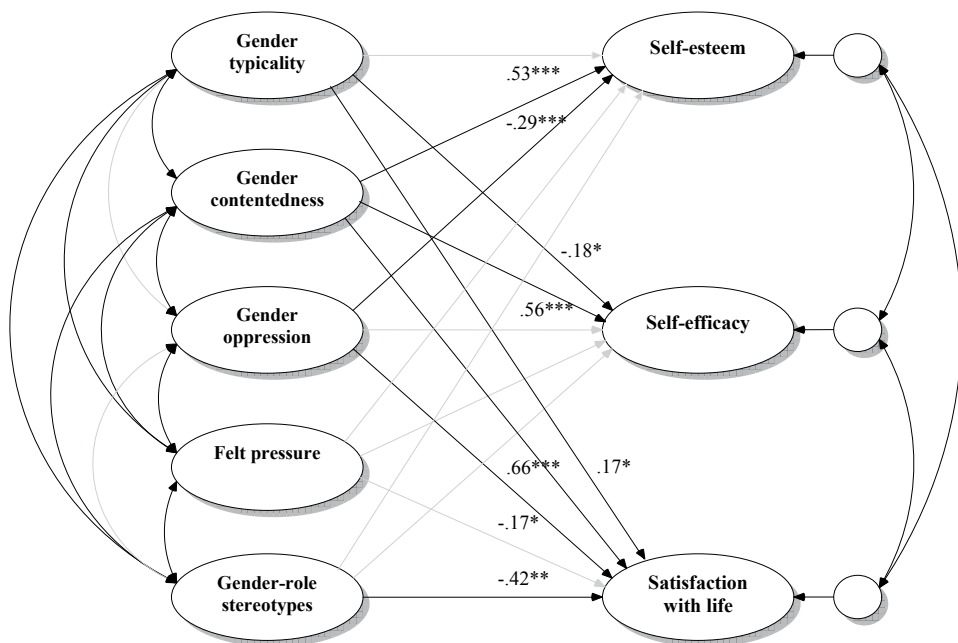
Figure 3. Model 2 – effects of gender identity on well-being indicators
(gender-role stereotypes controlled), *N* = 524. *Note.* *p < .05, ** p < .01, *** p < .001.
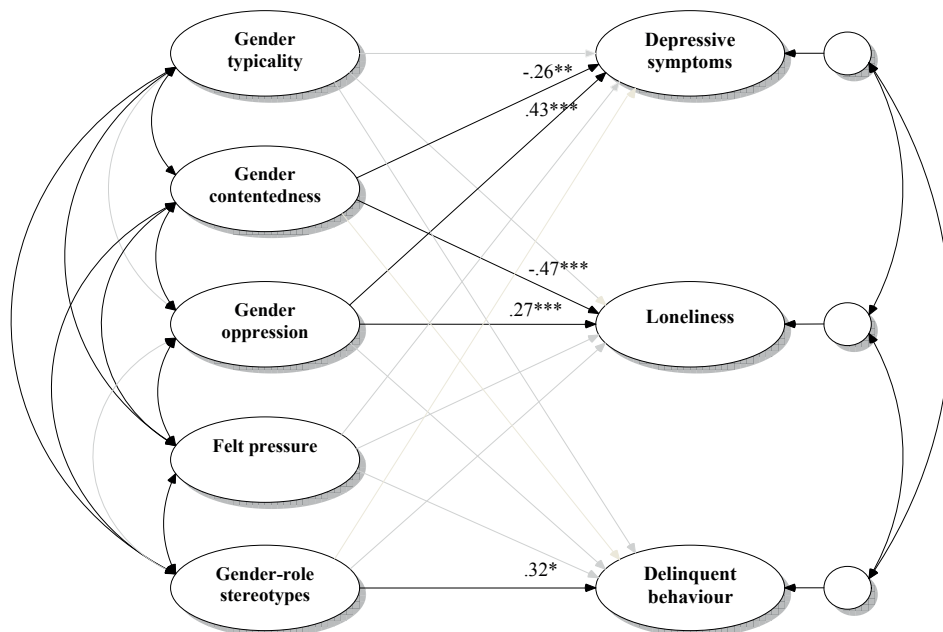
Figure 2. Model 1 – effects of gender identity on indicators of psychological difficulties
(gender-role stereotypes controlled), *N* = 530. *Note.* *p < .05, ** p < .01, *** p < .001.

In the case of well-being indicators, the model-fit indices were: $\chi^2(296, N = 524) = 669$, $p < .001$; CFI = .93; RMSEA = .05; SRMR = .05. As illustrated in Figure 3, gender contentedness and gender oppression had significant direct effects on self-esteem. Higher gender contentedness was related to higher scores on self-esteem, while gender oppression had a negative relationship with self-esteem. Gender contentedness was also positively related to self-efficacy, while gender typicality had a weaker negative link to self-efficacy. Satisfaction with life domains was significantly predicted by four gender-related constructs – higher gender typicality and higher gender contentedness were related to higher satisfaction with life domains, while higher felt gender oppression and stronger adherence to gender-role stereotypes was related to lower satisfaction with life domains. Statistically significant links in the model in Figure 3 are depicted with black arrows. Insignificant links are depicted with grey arrows.

The results also showed that the models accounted for a substantial share of most of the indicators of psychological functioning measured in our study except for delinquent behaviour. Table 20 displays determination coefficients for dependent latent variables in the models.

Comparing the results of SEM models (Figures 2 and 3) to a zero-order correlation matrix (Table 19); it can be observed that the same-gender-identity dimensions appear to have the strongest links to indicators of psychological difficulties and well-being in this study. In both analyses, gender contentedness had the strongest and most numerous links to psychological functioning, as measured in this study. Similarly, felt gender oppression also showed substantial direct links to psychological functioning in both analyses.

Table 20. *Share of Dependent Variable Variance Explained by the Models for Total Sample and by Gender*

Dependent variable	R^2		
Model 1	Total sample	Girls	Boys
Depressive symptoms	.33***	.28***	.22**
Loneliness	.33***	.36***	.29**
Delinquent behaviour	.04	.08	.02
Model 2			
Self-esteem	.33***	.31***	.33***
Self-efficacy	.19**	.23**	.19**
Satisfaction with life	.44***	.54***	.43**

Note. ** $p < .01$, *** $p < .001$.

However, some dimensions had shown fewer links to psychological functioning in SEM models when compared to zero-order correlation analysis. There were less statistically significant relationships between gender typicality and indicators of

psychological functioning, especially with regard to indicators of difficulties. While gender typicality had negative significant zero-order correlations with depression and loneliness, in the case of the SEM model, these relationships were not statistically significantly different from zero. A similar situation was observed in the case of felt pressure – statistically significant negative correlations with depression and loneliness were not reproduced in SEM models. Such a situation can be observed in cases where two variables become correlated to each other due to their shared variance with a third. In such cases, the direct link between the two variables becomes zero or smaller when controlling for the third variable. A similar situation may have occurred with the links of gender typicality and felt pressure to psychological-functioning indicators when the rest of the gender-cognition elements were controlled in the models. This suggests that the links that gender typicality and felt pressure had with the indicators of psychological functioning might be indirect.

To check if there were any indirect relationships between the two dimensions of gender identity (gender typicality and felt pressure) and the indicators of psychological functioning, the two models (Models 1 and 2) were complemented with additional regression lines from gender typicality and felt pressure to gender contentedness, gender oppression and gender stereotypes. The indirect paths in the model were estimated using the Model Indirect command in Mplus 5.2 and a bootstrap estimation of indirect effects with 1,000 bootstrap draws. Given the large sample size and the relatively high complexity of the model, in order to avoid significant effects that are close to zero, a more strict alpha level was chosen ($\alpha = .01$).

The analysis provided additional information on the links between gender typicality and indicators of psychological functioning. Gender typicality had statistically significant indirect effects on four indicators of psychological functioning: loneliness ($\beta = -.21$; $p < .01$; 99% CI = -.37 to -.05); self-esteem ($\beta = .25$; $p < .01$; 99% CI = .06 to .44); self-efficacy ($\beta = .23$; $p < .01$; 99% CI = .06 to .40); and satisfaction with life ($\beta = .37$; $p < .01$; 99% CI = .16 to .57). All of these paths from gender typicality went through gender contentedness – higher gender typicality predicted higher gender contentedness, which in turn predicted lower levels of loneliness, higher self-esteem, greater self-efficacy and higher satisfaction with life. Thus, gender typicality had numerous indirect effects on the indicators of psychological functioning. In contrast, significant indirect effects of felt pressure on the indicators of psychological functioning were not identified in Models 1 and 2.

As mentioned at the beginning of the 8.2.4 section, the two main models (Models 1 and 2) were also run without controlling for gender-role stereotypes, that is, this latent factor was removed from analysis. The results showed good model fit in both cases (fit indices were $\chi^2(209, N = 530) = 521$, $p < .001$; CFI = .94; RMSEA = .05; SRMR = .05, and for well-being indicators $\chi^2(209, N = 524) = 455$, $p < .001$; CFI = .95; RMSEA = .05; SRMR = .04). Some small improvements in model fit could even be observed, compared to the condition of controlling for gender-role stereotypes (see above). However, the pattern and strength of the links between gender-identity dimensions and indicators of psychological functioning remained the same as in the case of the condition where gender-role stereotypes were controlled, except for the links between felt pressure and

two indicators of well-being. In particular, higher felt pressure predicted lower self-esteem ($\beta = -.16$; $p < .05$) and lower satisfaction with life ($\beta = -.23$; $p < .01$).

To summarise, the analysis provided support for most of the hypothesised paths from gender-cognition elements to indicators of psychological functioning. Significant paths in the models were in the predicted direction: higher gender contentedness (directly) and higher gender typicality (mostly indirectly) were related to lower levels of psychological difficulties and higher well-being, while higher felt gender oppression and stronger adherence to gender stereotypes were both directly related to more psychological difficulties and lower well-being. Although, contrary to expectation, felt pressure for gender conformity did not have direct links to any of the psychological-functioning indicators in the models where gender-role stereotypes were controlled, the expected negative relationships with indicators of well-being appeared when gender-role stereotypes were not included in the model. One link in the unexpected direction was a weak negative relationship between gender typicality and self-efficacy.

8.2.4.2   Testing moderating effects of gender

To test the fourth hypothesis (H4) of the study, which predicted that gender would moderate the links between gender-cognition elements and selected indicators of psychological functioning, the two models above were tested in a multi-group analysis procedure as described by Holmbeck (1997). According to this procedure, to test for moderation effects of gender in a particular model, the overall fit of the model has to be assessed under two conditions: 1) with no constraints on the paths between the predictors and dependent variables and 2) with equality constraints on the paths between the predictors and dependent variables for the two gender groups. The interaction effect between moderator and predictor is present if the chi-square difference between the constrained and the unconstrained conditions is statistically significant (Holmbeck, 1997).

In this study, moderation by gender was tested for both models – the first one with the indicators of difficulties in psychological functioning (Model 1) and the second with the indicators of well-being (Model 2) as dependent variables. Predictors were the same in both cases (gender-identity dimensions and gender-role stereotypes) and regression paths were constructed from each element of gender cognition to each indicator of difficulties and well-being. All of these regression paths were constrained to be equal between gender groups in the constrained condition. Overall, 15 regression paths were constrained in both models. The fit indices for the two models under two conditions (constrained and unconstrained) are presented in Table 21. The chi-square difference between the two conditions in both models is not statistically significant at $\alpha = .05$. Constraining the paths between predictors and dependent variables to be equal did not significantly reduce the fit of the two models to the data, thus indicating that the models fit equally well for adolescent girls and boys.

To conclude, our analysis did not provide support for the hypothesised moderation by gender – the links between gender-cognition elements (gender-identity dimensions

and gender-role stereotypes) and indicators of different aspects of psychological functioning of adolescents did not vary by gender.

Table 21. *Multi-group Analysis of Model Fit*

Model 1	χ^2	$\Delta \chi^2$	*df*	CFI	RMSEA	SRMR
Unconstrained condition	1 277***	-	630	.88	.06	.07
Constrained condition	1 293***	16 (n.s.)	645	.88	.06	.07
Model 2						
Unconstrained condition	1 161***	-	630	.90	.06	.07
Constrained condition	1 183***	22 (n.s.)	645	.89	.06	.07

Note. *** *p* < .001, n.s. – not statistically significant at α = .05.

9. DISCUSSION

The aims of this study were as follows: 1) to identify and validate the multidimensional structure of gender identity among middle to late adolescents in a Lithuanian sample, and 2) to assess the links between gender-identity dimensions and important aspects of adolescent psychological functioning. The study was based on a multidimensional understanding of gender identity and a constructivist psychological perspective on gender-related aspects of individual functioning. This view suggests that gender identity is an important part of an adolescent's gender self-socialisation, reciprocally connected to other gender-related constructs, such as gender-role stereotypes. It also suggests that gender identity, through its cognitive, emotional and motivational properties, becomes intertwined with different aspects of the wider psychological functioning of an adolescent, including manifestations of certain psychological difficulties and aspects of well-being. Based on this premise, it was suggested that gender identity may be related to such psychological difficulties in adolescence as depressive symptoms, loneliness and delinquent behaviour, and such aspects of adolescent well-being as general self-esteem, general self-efficacy and satisfaction with life. The indicators of psychological functioning for this study were selected based on the following principles: 1) balance for difficulties and well-being, 2) theoretical relevance, and 3) developmental relevance.

The results of the study contribute to three aspects of gender-related research in psychology. *Firstly,* this study has been one of the first attempts to apply a multidimensional approach in conceptualising adolescent gender identity and extending the structure of gender identity, previously identified in children and early adolescents, to the period of middle to late adolescence. The results of the study indicate that the three most widely examined dimensions of gender identity – gender typicality, gender contentedness and felt pressure – are also meaningful constructs in describing gender identity in middle to late adolescence. In addition, our results suggest that there might be another dimension of gender identity – the level of felt gender oppression – which is relevant in middle to late adolescence. *Secondly,* the findings from this research advance knowledge regarding the links between gender identity and other aspects of psychosocial functioning by specifying the unique effect of adolescent gender-identity dimensions on psychological difficulties (depressive symptoms, loneliness and delinquent behaviour) and aspects of well-being (self-esteem, self-efficacy and satisfaction with life). In contrast with the majority of previous studies in the field, in this study, these effects were estimated taking into account the shared variance between the dimensions of gender identity and their relationships with gender-role stereotypes. This allowed for increased accuracy in the identification of the relative weight and role of each gender-identity dimension in predicting important aspects of the psychological functioning of adolescents. Our results indicate that the dimension of gender contentedness acquires a key role in predicting important aspects of psychological functioning in middle to late adolescence, which suggests that in this developmental period, the relative weights and roles of separate gender-identity dimensions may be different to pre-adolescence and early adolescence. *Thirdly,* the study completes the gap in moderation and factor-structure invariance tests that were missing from previous studies in this field. Such tests were carried out, in the

study, with regard to gender and grade. The results show that the identified dimensions of gender identity, and their links to a set of psychological difficulties and aspects of well-being, do not vary by gender, that is, they describe adolescents of both genders. The factor structure of gender identity also remains stable for adolescents in different grades. These three main aspects of the study's findings are discussed in detail below.

9.1   Structure of gender identity in adolescence

9.1.1 Dimensions of adolescent gender identity

The first research question in the study, which concerned the structure of gender identity in middle to late adolescence, was addressed by applying factor analysis. The results of exploratory factor analysis suggested that there were four dimensions of adolescent gender identity: gender typicality, gender contentedness, gender oppression and felt pressure to conform to gender norms. For the most part, these findings are in line with the results of previous studies on the structure of gender identity in younger age groups. Gender typicality, gender contentedness and felt pressure to conform to gender norms have all been acknowledged as unique dimensions of gender identity in samples of children and early adolescents (Bos & Sandfort, 2010; Carver et al., 2003; Corby et al., 2007; Egan & Perry, 2001; Jodoin & Julien, 2011; Yu & Xie, 2010; Yunger et al., 2004). The findings of this study initially provide a positive answer to the question regarding the ability to extend the structure of gender identity, previously established in samples of children and early adolescents, to later developmental periods (Tobin et al., 2010), particularly, middle to late adolescence. This study's results show that these three dimensions can be meaningfully applied to describe gender identity in middle to late adolescence also.

As in previous studies, the first identified dimension – gender typicality refers to the level of felt similarity between oneself and others in one's gender category. As formulated by Egan and Perry (2001), this dimension covers an individual's perceived typicality in different domains of gender-related functioning – traits, behaviours, activities and priorities. In addition to these domains, a couple of new domains have been added to operationalise the construct of adolescent gender typicality in the study. The additional domains included body and appearance as previously recommended by Tobin et al. (2010), and as empirically suggested by the pilot studies described above. Appearance and body are considered important aspects of gender in adolescence (Fredrickson & Roberts, 1997; Hyde et al., 2008; Tolman & Porche, 2000; Tolman et al., 2006), thus, unsurprisingly it may be important for an adolescent to take into account his or her body and appearance when subjectively assessing his or her gender typicality. Our findings empirically support the inclusion of these two domains when assessing adolescent gender typicality.

Another dimension in the study, felt pressure to conform to gender norms, as was the case in previous research, covered perceived negative reactions from people close to the subject and the subject himself/herself in the case of gender norm violation. When compared to earlier operationalisations, this study included a wider circle of interpersonal relationships that could be considered a source of gender normative

pressure for adolescents. In addition to parents and friends of both sexes, teachers were also included as an external source of felt normative pressure, and factor analysis showed that this decision was empirically appropriate. Thus, a revised scale reflects the construct of felt pressure to conform to gender norms more extensively. Taking into account more agents of gender-related socialisation is in line with a cognitive environmental approach to gender development, which emphasises the effects of family, peers, teachers and other important contexts when discussing child and adolescent gender identity (Blakemore et al., 2009; Bussey, 2011; Galambos et al., 2009).

With regard to the third dimension, gender contentedness, the findings of this study partly diverge from previously published research. The items intended to measure a single dimension of gender contentedness in the study diverged into two factors – gender contentedness and gender oppression. The first factor represents the construct characterised as satisfaction with one's gender role. The second can be described as a discontent with gender-based social limitations, restrictions and discrimination. The interpretation of these findings cannot be straightforward and requires consideration of several methodological and theoretical aspects, which are discussed below.

Firstly, what could be the reason for these items, which were intended to measure gender contentedness, loading on two different factors? There are two possible explanations for this. The first is a phenomenon called 'acquiescence factor', that is, a tendency for respondents to answer positively to questions or to agree with items in a questionnaire (Cambré, Welkenhuysen-Gybels, & Billiet, 2002; Krenz & Sax, 1987; Schmitt & Stults, 1985). Due to this factor, negatively-keyed items may have loaded separately to positively-keyed items. Quite often a tendency for oppositely-worded indicators, which were constructed to operationalise one (bipolar) concept, to load on two different factors is observed (Cambré et al., 2002). There is an ongoing discussion among scholars as to whether a one-factor solution with a specific correction of acquiescence bias should be applied as the best way to define the structure of the concept in such situations, or if two different factors without corrections should be used instead (Cambré et al., 2002). The decision, in this study, not to collate two different factors into one dimension with corrections was based on the relative novelty of the construct of gender contentedness. The construct and its empirical operationalisation are relatively new, and the detailed results of factor analysis for this construct have only been reported once in the literature (Julien & Jodoin, 2011). It is not clear from previous research whether the construct of gender contentedness is truly one-dimensional. Thus, for the sake of clarity and transparency, the exact structure suggested by factor analytical procedures was maintained, that is, two factors instead of the expected one factor was used, in all analyses.

The second explanation, as to why items intended to measure gender contentedness loaded on two factors, concerns the content of items. Closer inspection of the content shows that the items, which loaded on two distinct factors, differ with respect to absence or presence of direct or implied comparisons between gender groups. The items that loaded on the gender-contentedness factor express direct satisfaction with one's gender without referring to another gender group (i.e. 'I like my role as a girl' or 'I like what I am able to do as a girl'). In contrast, the items that loaded on the gender-oppression

factor express the level of satisfaction with one's possibilities in comparison with the other gender (i.e. 'I don't like that some things are only for boys' or 'I don't like that I cannot do things that only boys can do'). A similar distinction has been made in an unpublished revised version of the questionnaire measuring multidimensional gender identity (Perry, 2009, personal communication). Perry (2009, personal communication) has also identified a dimension that consists of similar items and reflects the same construct, that is, the level of satisfaction with the possibilities of one's gender group compared to the other gender. The main difference between our scale and Perry's scale for gender oppression is the response format – Likert-type and forced-choice, respectively. It is important to note that while this study's scale for gender oppression consists of negatively-keyed items, Perry's forced-choice scale includes both positively- and negatively-keyed items.

The findings show that the two dimensions, gender contentedness and gender oppression, are weakly negatively correlated, which indicates that their variances are largely independent of one another. Moreover, they relate differently to other dimensions of gender identity. While gender contentedness shows moderate positive links to gender typicality and felt pressure for gender conformity, gender oppression is unrelated to gender typicality and shows a weak tendency for a negative link with felt pressure. Moreover, a strong effect of gender was found when analysing the variance of gender oppression, and this effect was much stronger than the gender effect on the variance of gender contentedness. While gender contentedness is only slightly higher among boys, gender oppression is much more strongly felt among girls. These differences between gender contentedness and gender oppression in their relation to other constructs indicate that there is certain distinctness attributable to the two constructs.

What in particular is different between these two constructs? It is not possible, based on the findings of the study, to make clear-cut distinctions and offer further general explanation beyond the particular differences that were observed in the data. These findings are of exploratory nature and can only serve as a prompt for further exploration into the differences and similarities between the two constructs. Nevertheless, even at this initial point, it may be generally observed that gender oppression is not related to other dimensions of gender identity, but is strongly related to a person's gender. This suggests that gender oppression is a somewhat more straightforward reflection of an external, material reality of gender as it is experienced by girls and boys in our society, with girls facing (and/or observing other girls and women facing) more gender-based limitations and discrimination when compared to men. In fact, gender discrimination is perceived by children as young as five years of age, and girls are more likely to view themselves as victims of gender-based discrimination (Spears Brown & Bigler, 2004). Thus, the dimension of gender oppression indicates how a person reacts to the social, or otherwise, structural aspects of gender, how much discontent and dissatisfaction one experiences regarding the structural limitations and inequalities. Even though the level of discontent with gendered limitations and discrimination is experienced subjectively and varies among boys and girls, the effect of gender remains strong and the difference between the two groups is much stronger than variations inside the gender groups.

In contrast, gender contentedness is practically unrelated to gender, thus, variation inside each gender group is larger than that between gender groups. Also gender

contentedness has moderate positive links to the other dimensions of gender identity – gender typicality and felt pressure for gender conformity. It can thus be assumed that gender contentedness reflects more subjective aspects of gender identity, which are not predictable from gender, but are determined by other factors, or are possibly multi-determined by interactions between gender identity-related and other factors. Such an assumption is in line with the findings of Smith and Leaper (2006), who have shown that the level of gender contentedness can be predicted by certain patterns of gender typicality, felt pressure to conform to gender norms and peer acceptance. Thus, gender contentedness refers to one's subjective general sense of congruence and satisfaction with a particular gender category (boy, girl, woman and man). This sense is generally positive, that is, people generally feel satisfied with their gender, which is reflected in this study's data by the mean and median of gender contentedness (4.2 and 4, respectively) being well above the middle score on a five-point scale.

It can also be asked, whether gender contentedness and gender oppression are two aspects of one underlying construct, some kind of overall satisfaction with belonging to a gender category, including oppression as part of the (social) consequences of being a particular gender. Theoretically, it can be argued that overall satisfaction with one's gender category could have different aspects, such as satisfaction with gendered behavioural conventions, existing opportunities, prospective life-course trajectories, and external expectations and attitudes encountered due to one's gender category, including oppression, discrimination and inequality. However, empirically the situation does not meet the criteria formulated by Clark and Watson (1995, p. 318): '[the] scale developer must demonstrate that the intrasubscale item correlations (i.e., among the items that make up each subscale) are systematically higher than the intersubscale item correlations (i.e., between the items of different subscales)'. Since there are not enough empirical arguments to attribute these factors to one underlying construct, they are regarded as separate dimensions of gender identity.

To summarise, the findings suggest that there may be more dimensions of gender identity in addition to the three most studied ones – gender typicality, gender contentedness and felt pressure. Indeed, the definition of gender identity as thoughts and feelings regarding one's membership of a gender category is a wide one and could hardly be covered by the three dimensions, especially, taking into account the complexity of the concept of gender itself, as discussed in the first chapter of this study. Some aspects of gender, particularly, such structural elements as gender-based inequality, and discrimination, have to a large extent been absent from the theorising on gender identity in psychological studies, especially in quantitative perspectives. It has been observed that early in life, children notice gender inequalities, and power and status difference between men and women (Bussey, 2011). It has also been noted that some aspects of gender identity are related to the level of gender inequality in society (Wood & Eagly, 2002). This suggests that the structural aspects of gender, such as social inequality, may be an important area to consider when exploring gender identity, as suggested recently by Leaper (2011). This may be particularly relevant in adolescence when cognitive developmental changes create a possibility for the critical re-appraisal of social norms, stereotypes and self. Spears Brown and Bigler (2004) have shown that

attributions of gender-based discrimination are more frequent in older children. As reported in previous studies, adolescents, girls in particular, are able to perceive and name gender-based discrimination in different domains of functioning (Leaper & Brown, 2008). Unsurprisingly, the structural aspects of gender, such as gender-based inequality and discrimination, may be reflected in adolescent self-representations as one of the dimensions of gender identity as suggested by this study's findings.

9.1.2 Structural invariance and discriminant validity of gender identity scales

The first hypothesis of the study, which predicted that the structure of gender identity would not vary by gender and grade, was supported by the findings. The results show that the four dimensions – gender typicality, gender contentedness, gender oppression and felt pressure describe the structure of gender identity equally well for boys and girls. Thus, even though the development of gender identity for girls and boys may take very different paths, particularly during the early stages of development (see e.g. Chodorow, 1989), this study's findings support the view that there are certain structural aspects of gender identity, at least in adolescence, which are meaningful in describing gender identity regardless of sex. This does not imply that sex does not have an effect on gender identity (quite the opposite, as the analysis of variance of gender-identity dimensions suggests in the study), but only that there are common dimensions by which gender identity of adolescent girls and boys can be described. Similarly, the four dimensions identified in the study remain invariant from middle to late adolescence, that is, they can meaningfully describe gender identity for adolescents in the ninth (approximately 15 years of age), tenth (approximately 16 years of age) and eleventh (approximately 17 years of age) grades. Such analyses of gender identity, which structure invariance by gender and grade (or age), have not been previously reported in the field, thus, our study fills an important gap in the literature.

The second hypothesis of the study addressed the discriminant validity of scales for gender-identity dimensions and predicted that they were positively related to, but not overlapped by, a set of other gender-related measures (trait sex typing, adherence to adolescent gender ideologies and gender-role stereotypes). The results of our study are in line with this hypothesis and also with previous findings reported in the literature. Trait sex typing had a couple of weak links with gender-identity dimensions, which is in line with the notion that it is only one of the multiple domains on which summary higher-level judgements about one's gendered self are based (Spence, 1993; Spence & Buckner, 1995). Spence (1993) also contended that self-attributes in different domains (e.g. trait sex typing) can change while the sense of gender identity remains stable, which suggests that there should not be a high correlation between gender identity and sex typing, as was found in the study.

In contrast, stronger and more links were found between gender-identity scales and measures of adolescent-gender ideologies and stereotypes. This finding is in line with a general contention of the constructivist approach to gender development that gender identity motivates an individual to actively attend to and process information about gender that is available in different environments (Kohlberg, 1966; Martin,

Ruble, & Skrybalo, 2004; Martin et al., 2002; Ruble et al., 2006), and that a stronger gender identity motivates a person to internalise cultural standards related to gender (Bussey, 2011), which include gender ideologies and stereotypes. Even though there were multiple statistically significant links between gender identity and adolescent gender ideologies and stereotypes, the size of these correlations did not suggest that the scales were measuring the same construct – correlations ranged from weak to moderate (from .12 to .40) in all but one case. This exception was a close positive link observed between felt normative pressure and gender-role stereotypes with a correlation between the scales estimated as .59 and correlation between latent factors estimated at .73. These findings suggest a strong link between the constructs of felt normative pressure and gender-role stereotypes. This strong relationship can at least partly be explained by the prescriptive nature of gender-role stereotypes in the study's scale – prescriptive formulations express normative pressure in a direct way ('Boys *should take* more care about their physical strength than girls'). Another explanation could be the hypothesis of Tobin et al. (2010) that felt pressure for gender conformity may be an especially strong facilitator of adherence to gender stereotypes. In any case, the strength of this link does not suggest a full overlap of the two constructs.

To summarise, the results of this study provided support for the structural invariance of gender identity with regard to gender and grade of adolescents. The four dimensions – gender typicality, gender contentedness, gender oppression and felt pressure – describe the structure of gender identity equally well for boys and girls, and for adolescents in the ninth, tenth and eleventh grades. Moreover, the scales measuring the four dimensions of gender identity, as expected, are positively linked, but do not overlap with, other measures of gender-related constructs (trait sex typing, adherence to adolescent gender ideologies and gender-role stereotypes), which supports the discriminant validity of gender-identity scales.

9.2 Links between gender identity and indicators of psychological difficulties and well-being

The second research question addressed in the study dealt with the nature and strength of the relationships between gender-identity dimensions and selected indicators of the psychological functioning of adolescents. It was one of the first attempts to study these links using an SEM approach, focusing on the unique relationships between the separate dimensions of adolescent gender identity and psychological difficulties (depressive symptoms, loneliness and delinquent behaviour) and strengths (self-esteem, self-efficacy and satisfaction with life) of adolescents. It has also been one of the first attempts to address this question when controlling for potentially overlapping effects of gender-role stereotypes, as suggested by Perry & Pauletti (2011) and Tobin et al. (2010). The study hypothesised that higher gender typicality and higher gender contentedness were related to lower levels of psychological difficulties and higher positive aspects of psychological functioning, while higher felt pressure, increased gender oppression and stronger adherence to gender stereotypes are related to higher negative and lower positive aspects of psychological functioning.

The study showed that gender-identity dimensions and gender-roles stereotypes accounted for a significant and substantial share of the variance of the indicators of psychological functioning used in our study (from 19% to 44%), except for delinquent behaviour. Empirical support was found for most of the hypothesised paths between gender cognition elements and psychological-functioning indicators. Higher gender contentedness (directly) and higher gender typicality (mostly indirectly) were related to lower levels of psychological difficulties and higher positive aspects of psychological functioning, while higher felt gender oppression and stronger adherence to gender stereotypes were both directly related to more psychological difficulties and decreased feelings of well-being. Felt pressure only had negative relationships with indicators of well-being when gender-role stereotypes were not included in the model. Gender typicality was negatively related to self-efficacy. The most important aspects of these findings are discussed below.

First of all, the results suggest that in middle to late adolescence the dimension of gender contentedness plays a key role in predicting important aspects of psychological functioning, in particular, depressive symptoms, loneliness, self-esteem, self-efficacy and satisfaction with life. This finding is in contrast with previous studies on child and pre-adolescent samples, which reported that gender typicality was the strongest correlate of indicators of psychological functioning compared to other dimensions of gender identity. Although the majority of these previously reported links were zero-order correlations, two studies (Egan & Perry, 2001; Yu & Xie, 2010) also reported unique links indicating that gender typicality was the strongest predictor of psychological functioning (global self-worth, loneliness, peer social competence and acceptance by peers). Thus, the difference in the study's findings must be related not to the method of analysis, but to other factors.

Age differences between the participants in the study and in previous research may be one of the most relevant of such factors. As already emphasised, previous studies in the field focused mostly on late childhood and early adolescence. Numerous empirical findings suggest that this might be when gender rigidity is the strongest and when it is important to strictly adhere to gender stereotypical, normative behaviours and attitudes (Crouter et al., 2007; Katz & Ksansnak, 1994; Martin & Ruble, 2004; Serbin, Powlishta, & Gulko, 1993). Thus, it is unsurprising that a feeling of gender typicality is the most important gender-identity dimension predicting psychological functioning at this age. However, later on, with subsequent advances in cognitive functions of an adolescent (Clemans et al., 2010; Kuhn, 2009), most individuals become more flexible in their gender-related characteristics, behaviours and attitudes (Crouter et al., 2007). It would be unsurprising then that with increased gender flexibility in adolescence, the role of self-perceived gender typicality becomes less important with regard to different aspects of psychological functioning and instead the role of gender contentedness becomes more salient.

Such reasoning is further supported by the findings of mediation analysis in this study, which revealed that typicality relates to certain indicators of psychological functioning only when it contributes to the sense of gender contentedness. Thus, gender contentedness not only has strong direct links to indicators of psychological difficulties

and well-being in adolescence, but also acts as a mediator for other dimensions of gender identity, in particular, gender typicality. Thus, it can be assumed that what contributes to gender contentedness, contributes to better psychological adjustment. Particularly strong links between the variances of gender contentedness and satisfaction with life variables in the study may even allow the question to be raised as to whether gender-related functioning is another important domain of adolescent life, along with other domains included in the measures of satisfaction with life.

It is also important to consider the nature of the links between gender contentedness and gender typicality, since their effects on the indicators of psychological functioning are intertwined. It was found by Smith and Leaper (2006) that gender contentedness varied as a function of an interaction between gender typicality, felt peer pressure to conform to gender norms and peer acceptance. Some combinations of the latter three variables were related differently to the levels of gender contentedness. In particular, those respondents who had high scores on gender typicality, perceived low levels of peer pressure and were highly accepted by peers were more content with their gender than those who indicated moderately-low gender typicality, low peer pressure and moderately-high peer acceptance (Smith & Leaper, 2006). Furthermore, the effect of gender typicality on self-worth was partially mediated by peer acceptance – higher felt typicality was related to higher acceptance by peers and thus to higher self-worth (Smith & Leaper, 2006). Menon's (2011) study found that perceiving gender-atypical attributes in the self undermines adjustment partly because it leads children to feel atypical and discontent with their gender. These findings refer to the relational nature of gender identity, as discussed in Chapter 4.2, and suggest that it is not gender typicality per se, which is important for adolescent psychological functioning and adjustment, but rather how the level of gender typicality is met in a relational context. For example, if an adolescent is low on gender typicality, will he or she face dislike, marginalisation or certain repercussions from peers, family or other agents of socialisation, as is often found to be the case (Lee & Troop-Gordon, 2011). If so, this may lead to lower gender contentedness and, in turn, to difficulties in psychological functioning. But if the environment shows acceptance towards a gender atypical child, these links with psychological adjustment do not have to appear. Similar observations have been expressed in a recent review by Perry and Pauletti (2011).

Another important aspect of the findings points to the close links between subjectively perceived gender oppression and psychological difficulties and well-being of adolescents. A higher level of felt gender oppression directly predicted four of the six indicators of psychological functioning – more depressive symptoms and loneliness, but lower self-esteem and satisfaction with life. These results are in line with the general findings reported in previous studies, that discrimination on any basis negatively affects psychological health and adjustment (Blaine, 2007).

Gender-role stereotypes were also found to directly predict two indicators of psychological functioning in the study – a more stereotypical understanding of gender roles was related to higher delinquent behaviour and lower satisfaction with life, both links were in the predicted direction. Interestingly, very few previous studies have reported such strong direct links between gender stereotypes and psychological

difficulties or well-being. The study's findings can at least partly be explained by the prescriptive nature of gender-role stereotypes in our scale. As suggested by Thompson et al. (1992), prescriptive stereotypes are more closely linked to behaviour, thus, it can be assumed that they are also more closely linked to psychological functioning.

An unexpected finding of the study was the lack of links between felt pressure for gender conformity and selected indicators of psychological functioning with gender-role stereotypes controlled. Nevertheless, this dimension of gender identity should not be considered as unrelated to the psychological functioning of adolescents. The fact that felt pressure correlated highly with gender-role stereotypes, which may have resulted in multicollinearity between the involved constructs, may be responsible for the observed situation. Such an explanation appears even more plausible when looking at the results of the analysis without controlling for gender-role stereotypes – in these conditions, felt pressure had negative direct links with self-esteem and satisfaction with life. The situation would suggest mediation by gender-role stereotypes; however, the direct tests of mediation did not confirm such an explanation. Nevertheless, it is important to consider that there is a certain relationship between felt pressure and gender-role stereotypes that affects their links to psychological-functioning indicators. Interactions between felt pressure and gender stereotypes with other dimensions in the tested models may also account for this unexpected situation. It has previously been observed that the effect of felt pressure for gender conformity on internalising symptoms varied as a function of the degree of felt gender typicality (Yunger et al., 2004). For children, who felt gender typical, felt pressure did not have a significant effect on internalising symptoms, but the effect became significant for those with a moderate level of felt typicality and was even stronger for gender atypical children (Yunger et al., 2004). Thus, an important next step for analysing the role of felt pressure for gender conformity with regard to the psychological functioning of adolescents should be the analysis of interactions or patterns of gender identity and gender stereotypes as also recently suggested by Tobin et al. (2010).

Finally, the finding that gender did not moderate the links between gender-identity dimensions, gender-role stereotypes and indicators of psychological functioning may seem at odds with the results of previous studies discussed in Chapter 5.3. However, this is not necessarily the case, since most of the previous reports did not test for the actual differences between the respective links by gender, but simply reported separate correlations for the two groups. More precise methods of comparison between gender groups should be applied in the future studies to determine if there are gender variations in the results.

9.3 Gender and grade effects on gender identity and stereotypes

Although it was not among the main questions of the study, in order to compare and connect the findings with previous studies, the effects of gender and grade on the variances of gender-identity dimensions and gender-role stereotypes were examined. Boys in the sample adhered more strongly to gender-role stereotypes when compared to girls. The same tendency has been observed in earlier studies – generally men and boys

are found to express more stereotypical attitudes with regard to gender, and women and girls express more egalitarian gender-related attitudes (Blakemore et al., 2009). This phenomenon is explained by the content of masculinity in the western cultural tradition – masculinity has a strong dimension of sexism and devaluation of the feminine, since it is constructed as something opposite to the feminine (Chodorow, 1999), thus, boys and men internalise stereotypical sexist attitudes together with masculinity.

A strong effect of gender on felt pressure for gender conformity is also in line with numerous previous studies, which found that boys and men experience more pressure to conform to gender norms when compared to girls and women (Bos & Sandfort, 2010; Corby et al., 2007; Egan & Perry, 2001; Yu & Xie, 2010). Another strong effect of gender was observed in the case of gender oppression – it is much higher among girls than boys. As mentioned in the previous chapter, since male or masculine activities are considered to have more value and prestige (Bussey, 2011), girls may feel more eager to engage in such activities and feel more limited by being excluded from them. In comparison, boys feel there is less value in what girls do and it does not make them feel limited or oppressed if they are not expected to engage in these activities. The same explanation can be applied to the finding that boys feel slightly more content with their gender than girls – a finding that was more strongly pronounced in previous studies (Egan & Perry, 2001; Yu & Xie, 2010; Menon, 2011).

In addition, a significant positive effect of grade was found on gender contentedness, but not on other elements of gender cognition. Adolescents in higher grades were more satisfied with their gender than adolescents in lower grades, and this effect did not vary by gender. This finding suggests that gender intensification may be related to an increase in gender contentedness or an acceptance of one's gender role, but not to an increase in gender typicality, as hypothesised in previous tests of the gender intensification hypothesis (e.g. Priess et al., 2009). Thus, a multidimensional perspective on gender identity should be applied instead of solely focusing on gender typicality when testing a gender-intensification hypothesis. Similar recommendations have previously been expressed by Bartini (2006) and Katz and Ksansnak (1994).

9.4 Limitations of the study

The findings of the study have to be evaluated in the context of its weaknesses. One of the main limitations of the study is the convenience sampling procedure applied. Even though a quota strategy was used to ensure that the sample did not differ from the population of middle to late adolescents in the selected administrative region on the basis of grade, gender, type of school and type of residence, there may have been other important participant characteristics that were not addressed by selecting by convenience rather than using probability sampling. Moreover, the attrition rate of potential participants due to absence from the classroom on the day the study was conducted is considerable. It could have been caused by the timing of the study during the months with the highest rates of colds and respiratory diseases in Lithuania (the study was carried out in winter months), and it is surmised that a large share of the absent students may have had some health problems. This attrition was not addressed

or otherwise corrected for in the study. These issues have to be taken into account when considering the generalisability of the findings.

Another note of caution should be sounded with regard to the response format used in the study. It was found to affect the level of gender stereotypicality in studies by Katz and Ksansnak (1994) and Signorella et al. (1993). In particular, the forced-choice format generated higher scores on stereotypicality measures when compared to the flexible-response format. Although there is no evidence that gender-identity scores may be affected by use of a forced-choice rather than a flexible-response format, it should nevertheless be taken into account that in the study, results were obtained using the Likert-type scale, which is more flexible and provides the possibility for a neutral answer to be chosen when compared to forced-choice formats.

The possibility of acquiescence bias is another methodological limitation of the study. As reported in methodological literature, as small a share as 10% of participants providing answers in line with the acquiescence bias can result in differential loadings of negatively- and positively-keyed items intended to measure one bidirectional construct (Schmitt & Stults, 1985). Even though the finding of the fourth dimension of gender identity – gender oppression – is supported by a similar dimension proposed by Perry (2009, personal communication) working with US samples, this finding is exploratory in nature and should be tested with other independent samples of adolescents and using a mixed set of negatively- and positively-keyed items.

In addition, a more systematic approach to selecting indicators of psychological difficulties and well-being of adolescents might have been a reasonable alternative strategy for this study. A clearly theoretically- and operationally-defined set of indicators of psychological difficulties (e.g. internalising and externalising symptoms) and well-being (e.g. emotional well-being and psychological well-being) might have provided the possibility of making a more in-depth and systematic examination of the relationships between gender identity and particular aspects of the psychological functioning of adolescents. An alternative approach would have been to cover psychological difficulties and well-being in an important domain of adolescent functioning (e.g. school adjustment).

Finally, on a more theoretical level, the study did not address the possible dynamic aspects of gender identity and its dimensions. As mentioned in the introductory chapters, it is not only this study, but the whole field of research on gender identity, which lacks a dynamic approach. There are no studies, which would apply the traditional analysis of developmental stages/statuses with regard to gender identity, even though this approach is probably the most popular one among the studies on general identity. The preoccupation with the structure of gender identity might lead to important dynamic aspects of the construct being overlooked. It has to be acknowledged that a change of perspective from structural to dynamic might generate a completely different interpretation of the findings. For example, particular scores on the dimensions of gender identity may be the result of being in a particular developmental stage with regard to one's gender identity (e.g. low gender typicality in moratorium and high gender contentedness in identity achievement status, etc.). Thus, it is important that findings from the study, and from previous research focusing on the structural aspects of gender

identity, would be complemented with a dynamic perspective in future studies in this field. It is particularly important with regard to adolescent gender identity, since in this developmental period particularly, personal identity undergoes profound change and core processes of development, which are closely related to basic aspects of the personality and psychological functioning of an individual.

10. CONCLUSIONS

Despite these limitations, this study contributes to and expands the debate regarding the structure of gender identity and the links between gender-identity dimensions and important domains of psychological functioning in adolescence. The results of the study indicate that the three most widely-examined dimensions of gender identity – gender typicality, gender contentedness and felt pressure – are also meaningful in describing gender identity in middle to late adolescence. In addition, a new dimension of gender identity – the level of felt gender oppression – was identified. The structure of adolescent gender identity is invariant by gender and grade, and the dimensions of gender identity have discriminant validity with regard to trait sex typing, adolescent gender ideologies and gender-role stereotypes.

Identified gender-identity dimensions have significant direct and/or indirect links to indicators of psychological difficulties (depressive symptoms, loneliness and delinquent behaviour) and well-being (self-esteem, self-efficacy and satisfaction with life) in adolescence. Most of the links are of the predicted direction: higher gender contentedness (directly) and higher gender typicality (mostly indirectly) are related to lower levels of psychological difficulties and higher positive aspects of psychological functioning, while higher felt gender oppression and stronger adherence to gender-role stereotypes are both directly related to more psychological difficulties and lower scores on well-being indicators. However, felt pressure for gender conformity is related to psychological functioning (negatively linked to self-esteem and satisfaction with life) only when gender-role stereotypes are not controlled for, and gender typicality and self-efficacy have a weak negative relationship, a finding which was not an expected.

Overall, gender-identity dimensions and gender-role stereotypes account for a significant and substantial share of variance of the indicators of psychological functioning measured in our study (from 19% to 44%), except for delinquent behaviour. The dimension of gender contentedness acquires a key role in predicting important aspects of adolescent psychological functioning. Identified links between gender identity, gender-role stereotypes and indicators of psychological functioning apply equally to both gender groups.

Practical implications. The results of this dissertation can be applied in an educational setting, for work with adolescents themselves, and their parents, teachers or professionals working with young people. Firstly, the findings show that subjective satisfaction with one's gender role is the most important aspect of gender identity when considering psychological difficulties and well-being of adolescents. Higher contentedness with one's gender-related functioning is linked to higher well-being and less psychological difficulties. This suggests that it is important to facilitate factors that contribute to an adolescent's sense of gender contentedness. For example, it can be beneficial to help young people to strengthen the feelings of peer acceptance and social connectedness, lower the feelings of loneliness and reduce experiences of bullying victimisation, especially for those adolescents, who are perceived as non-complying to gender norms.

Though the idea that optimal psychological functioning is related to internalisation of normative masculinity for boys and normative femininity for girls has not been supported by research findings, it is still held as a strong belief among the general public, and professionals in youth-related work areas. The findings of this study suggest that instead of trying to help adolescent boys and girls acquire their respective normative masculinity and femininity, it may be more beneficial to help young people accept their own gendered ways of being, their own unique experiences as gendered persons. Such acceptance can be achieved despite perceived gender atypicality or felt pressure to conform to gender norms.

Furthermore, our findings show that higher perceived gender oppression, that is discontent with gender-based social restrictions and discrimination, predicts higher levels of psychological difficulties and lower well-being in adolescence. This suggests that equal-opportunities policy and education on gender equality for both professionals who work with young people, and for adolescents themselves, can be an important aspect in the prevention of psychological difficulties and the facilitation of well-being among young people. Such efforts should include promotion of the effective ways of coping with gender inequality. Finally, our findings show that stereotypical ways of thinking about gender and gender roles can be challenged in work with adolescents, since young people in this developmental period are able to think critically about the social category of gender and their own gender-related experiences.

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ANNEXES

A. Population of ninth to eleventh grade students in schools of the Vilnius region

Grade	9th	10th	11th	1st	2nd	3rd	Total
High schools							**11070**
Elektrėnai reg.	16	11	19				46
Šalčininkai dist. reg.	204	156	212				572
Širvintai dist. reg.	51	39	88				178
Švenčionys dist. reg.	73	51	85				209
Trakai dist. reg.	126	132	179				437
Ukmergė dist. reg.	166	150	215				531
Vilnius reg.	2717	2556	2707				7980
Vilnius dist. reg.	333	375	409				1117
Gymnasiums							**13644**
Elektrėnai reg.				220	215	241	676
Šalčininkai dist. reg.				212	188	248	648
Širvintai dist. reg.				112	122	128	362
Švenčionys dist. reg.				294	301	298	893
Trakai rdist reg.				214	245	256	715
Ukmergė dist. reg.				240	227	201	668
Vilnius reg.				2776	2840	2906	8522
Vilnius dist. reg.				399	387	374	1160
Subtotal	3686	3470	3914	4467	4525	4652	**24714**
Arts gynmasium							207
Vilnius reg.				75	63	69	207
Conservatorium							106
Vilnius reg.	14	38	54				106
Adult schools							1471
Trakai dist. reg.	35	79	158				272
Vilnius reg.	137	228	479	192	42	121	1199
Special schools							193
Šalčininkai dist. reg.	6	6					12
Ukmergė dist. reg.	19	6					25
Vilnius reg.	74	58	24				156
Junior high schools							1404
Elektrėnai reg.	62	91					153
Šalčininkai dist. reg.	65	91					156
Širvintai dist. reg.	42	53					95
Švenčionys dist. reg.	–	–					–

Grade	9th	10th	11th	1st	2nd	3rd	Total
Trakai dist. reg.	16	16					32
Ukmergė dist. reg.	106	131					237
Vilnius dist. reg.	248	242					490
Vilnius dist reg.	118	123					241
Youth schools							171
Ukmergė dist. reg.	9	20					29
Vilnius reg.	60	82					142
Socialisation centres							39
Širvintai dist. reg.	5						5
Vilnius reg.	12	9					21
Vilnius dist. reg.	6	7					13
Medical institutions' schools							29
Elektrėnai reg.	14	15					29
Subtotal							**3620**
Total							**28334**

Note. Data provided by Statistics Lithuania, inquiry made on 10 November 2011.

Reg. – region, dist. – district.

Confirmatory factor analysis results for parcelled indicators of psychological difficulties and well-being
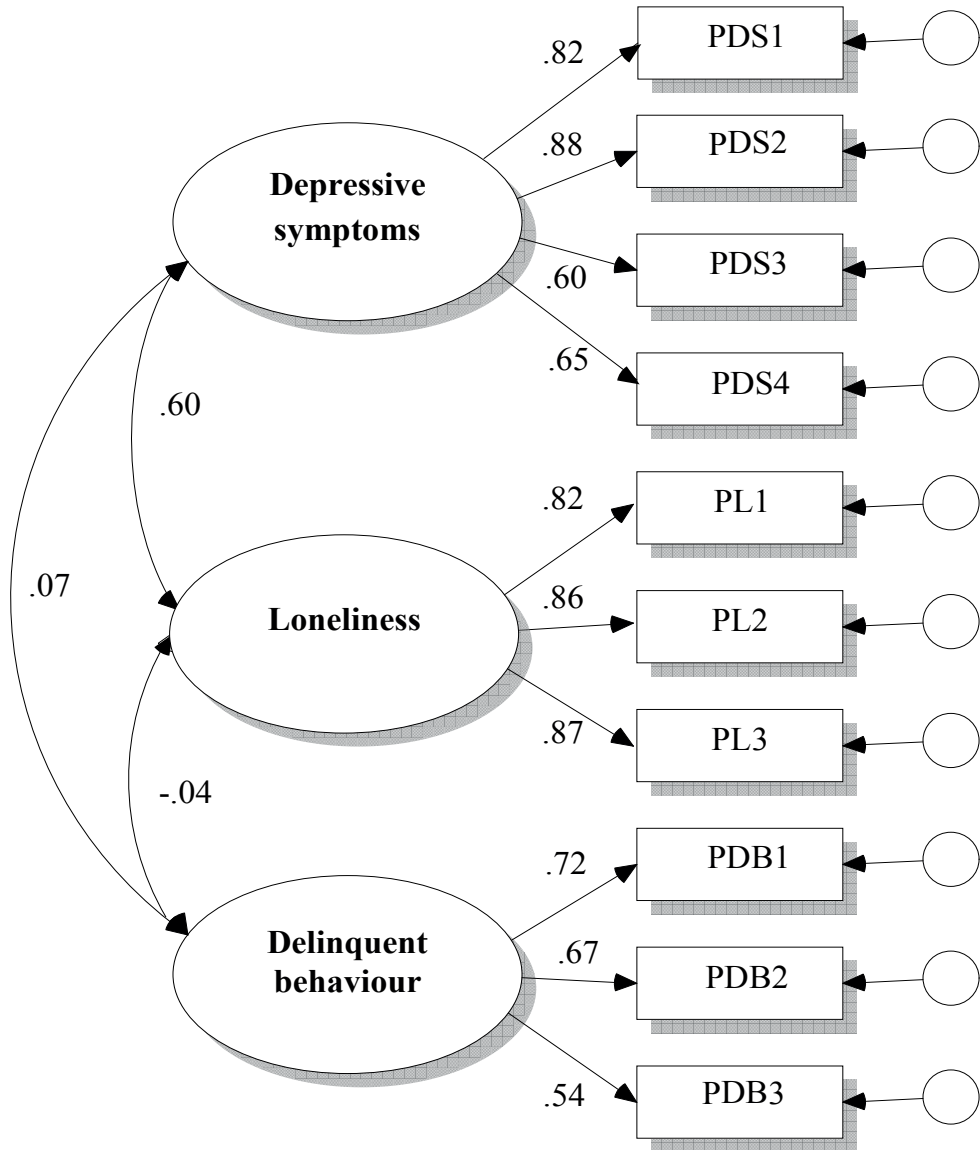
Figure B.1. Parcelled measurement model for indicators of difficulties in psychological functioning
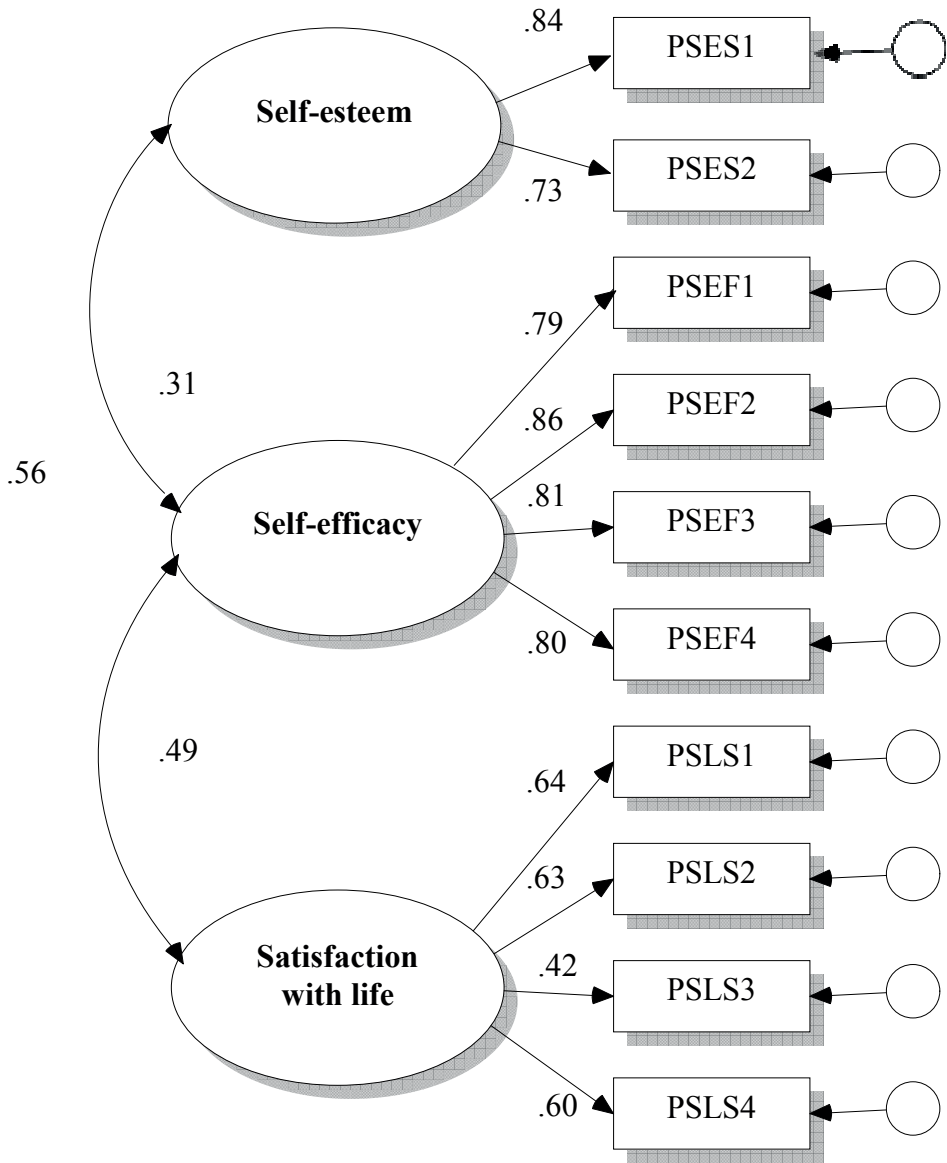
Figure B.2. Parcelled measurement model for indicators of well-being

C. Results of factor analysis for gender-identity measures
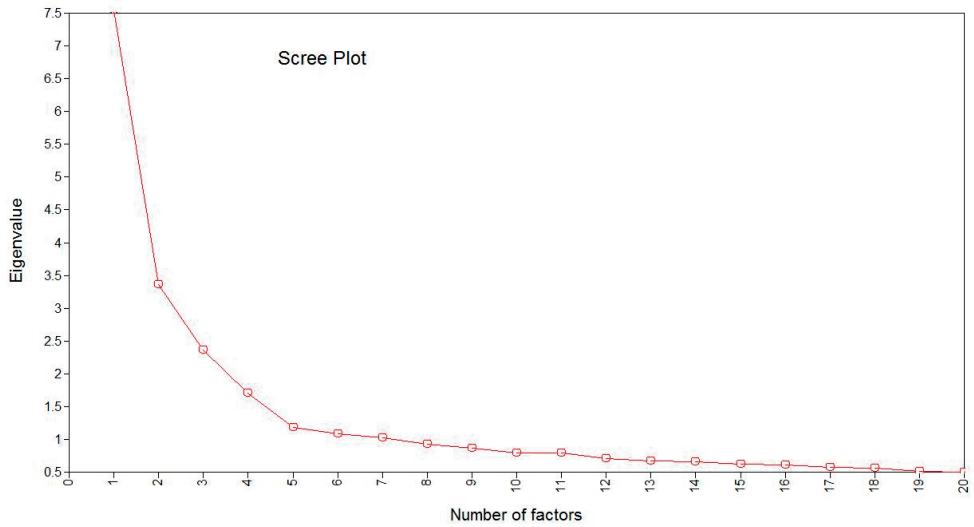
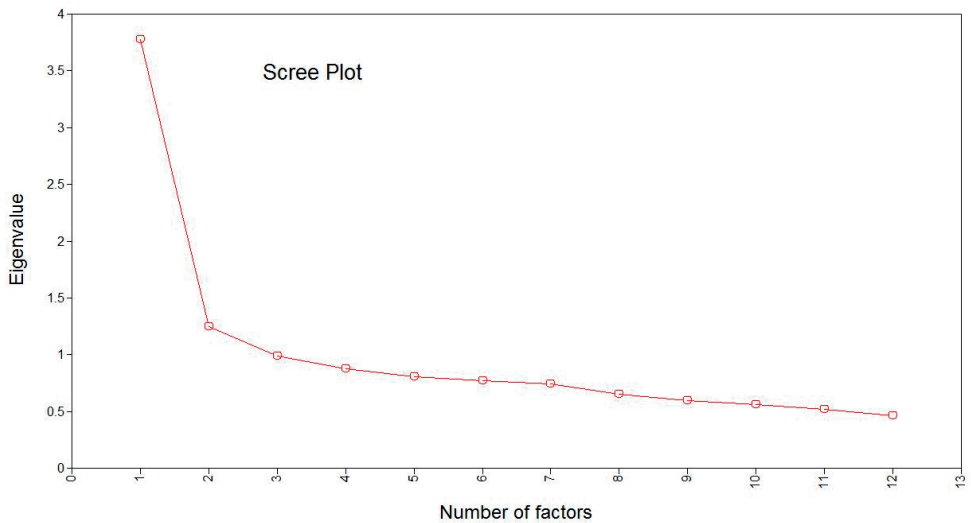*Figure C.1.* Scree plot for Exploratory Factor Analysis of gender-identity items

Figure C.2. Scree plot for Exploratory Factor Analysis of gender-stereotype items

Corrected Item–Total Correlations for Gender-Identity Dimensions and Gender Stereotypes

Item	Item–total (minus item) correlations	Cronbach's alpha if item deleted
Gender typicality (8 items, Cronbach's alpha .86)		
1. The traits of my character are similar to other girls of my age.	.53	.86
4. The things I do in my spare time are similar to what other girls of my age do in their spare time.	.51	.86
7. My opinions on most questions are like opinions of other girls of my age.	.51	.86
18. The things that are important to me are the same as those to other girls of my age.	.68	.84
20. The way I behave is similar to the way other girls of my age behave.	.72	.83
22. I feel similar to other girls of my age.	.74	.83
24. I look like other girls of my age.	.58	.85
29. I pursue the same things that other girls of my age pursue.	.62	.85
Gender contentedness (3 items, Cronbach's alpha .70)		
5. I like what I am able to do as a girl.	.59	.51
11. I like what I can achieve as a girl.	.52	59
23. I like my role as a girl.	.43	.71
Gender oppression (6 items, Cronbach's alpha .69)		
3. I feel it is unfair that I have to do certain things just because I am a girl.	.42	.65
8. I don't like that certain behaviour is expected of me just because I am a girl.	.35	.67
16. I don't like how others view me as a girl.	.26	.69
27. I don't like that some things are only for boys.	.44	.64
32. I don't like that I cannot achieve the things that boys can achieve.	.52	.61
35. I don't like that I cannot do things that only boys can do.	.52	.61
Felt pressure (10 items, Cronbach's alpha .90)		
15. My female friends would not like it if I behaved the way that only boys do.	.60	.89
19. My parents would not like it if I took up an activity that is only for boys.	.64	.89
21. My male friends would not like it if I behaved the way that only boys do.	.64	.89

Item	Item–total (minus item) correlations	Cronbach's alpha if item deleted
25. My teachers would not like it if I took up an activity that is only for boys.	.61	.89
31. My male friends would not like it if I took up an activity that is only for boys.	.68	.89
33. My female friends would not like it if I took up an activity that is only for boys.	.71	.88
37. My parents would not like it if I behaved the way that only boys do.	.71	.88
39. My teachers would not like it if I behaved the way that only boys do.	.64	.89
40. I would not like it if someone said I was acting like a boy.	.60	.89
42. I don't like girls who act like boys.	.63	.89

Gender stereotypes (10 items, Cronbach's alpha .79)

| Item	Item–total (minus item) correlations	Cronbach's alpha if item deleted
9. A guy should show his weakness less often than a girl.	.39	.78
12. Tears are more inappropriate for boys than for girls.	.50	.77
13. It is more important for a girl to stay decent and keep her good reputation than for a boy.	.36	.79
14. A girl has to try to be kind and helpful to others.	.39	.78
17. Disobedience and rebellious behaviour is more inappropriate for girls than for boys.	.47	.77
26. In difficult situations a guy has to take all initiative and responsibility.	.50	.77
28. Boys should take more care about their physical strength than girls.	.51	.77
36. Girls rely on their feelings and emotions more than guys do.	.44	.78
38. Swearing and fighting is more inappropriate for girls than for boys.	.50	.77
41. It is more important for guys to know about technical stuff and cars than for girls.	.57	.76
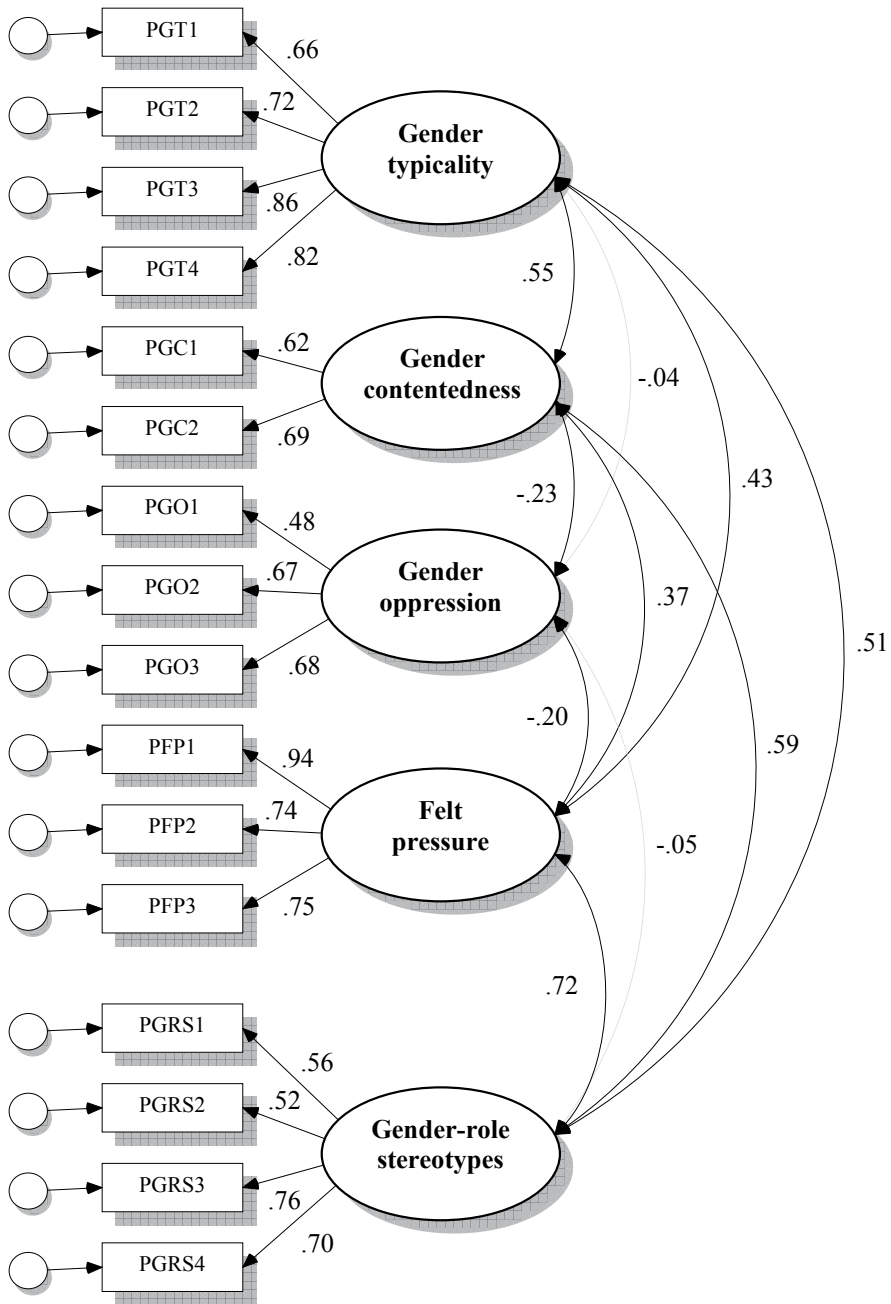
Figure C.3. Parcelled measurement model for gender identity and gender-role stereotypes.

D. Descriptive statistics for the main variables in the study

Normality test (Shapiro-Wilk's) for the study variables

Measures		*df*	Statistic	*p* value
Adolescent gender identity	Gender typicality	529	.98	<.001
	Gender contentedness	529	.94	<.001
	Gender oppression	529	.99	<.01
	Felt pressure	529	.98	<.001
Gender-role stereotypes		529	.98	<.001
Trait sex typing	Masculine traits	528	.98	<.001
	Feminine traits	528	.98	<.001
Adolescent femininity ideology scale	Objectified relationship with body	247	.99	.13
		247	.99	.12
	Inauthentic self			
Adolescent masculinity ideology in relationships		279	.97	<.001
Indicators psychological difficulties	Depression	519	.99	.05
	Loneliness	519	.89	<.001
	Delinquent behaviour	519	.95	<.001
Indicators of well-being	Self-esteem (SES)	519	.99	<.01
	SES (no true outliers)	*514*	*.99*	*.01*
	Self-efficacy (SEF)	519	.94	<.001
	SEF (no true outliers)	*514*	*.96*	*<.001*
	Satisfaction with life domains	519	1.00	.07

Note. Analysis of normality plots revealed true outliers in two scales: 1 in SES and 5 in SEF.

E. Data screening for structural equation modelling analysis

Variance inflation factor and Durbin-Watson scores for scales measuring the main study variables

Variance inflation factor (VIF) Independent variables	Dependent variables					
	Depressive symptoms	Loneliness	Delinquent behaviour	Self-esteem	Self-efficacy	Satisfaction with life
Gender typicality	1.31	1.31	1.31	1.31	1.31	1.31
Gender contentedness	1.28	1.27	1.27	1.28	1.27	1.28
Gender oppression	1.04	1.04	1.04	1.04	1.04	1.04
Felt pressure	1.62	1.63	1.62	1.63	1.63	1.62
Gender stereotypes	1.75	1.75	1.75	1.75	1.75	1.75
Durbin-Watson	1.83	1.88	1.69	1.87	1.88	1.68

Note. The critical value of $VIF > 4$ was applied to determine if the colinearity was not too high (Čekana-vičius & Murauskas, 2002)

MYKOLAS ROMERIS UNIVERSITY

Rasa Erentaitė

GENDER IDENTITY AND ITS LINKS TO OTHER ASPECTS OF PSYCHOLOGICAL FUNCTIONING IN ADOLESCENCE

Doctoral dissertation
Social sciences, Psychology (06 S)

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Doctoral dissertation prepared during the period of 2008–2013 at Mykolas Romeris University.

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    Prof. Viktoras Justickis (Mykolas Romeris University, Social Sciences, Psychology – 06 S).

Public defence of the Doctoral Dissertation will take place at the Psychology Research Council at Mykolas Romeris University on the 17th of May, 2013, at 10 AM in the Conference Hall of Mykolas Romeris University (Room I-414) (Ateities str. 20, Vilnius).

Summary of the Doctoral Dissertation was sent out on the 17th April, 2013.

Doctoral dissertation is available at Martynas Mažvydas National Library (Gedimino ave. 51, Vilnius) and Mykolas Romeris University libraries (Ateities str. 20 and Valakupių str. 5, Vilnius; V. Putvinskio str. 70, Kaunas).

Rasa Erentaitė

GENDER IDENTITY AND ITS LINKS TO OTHER ASPECTS OF PSYCHOLOGICAL FUNCTIONING IN ADOLESCENCE

Summary

1. Relevance of the study

The psychological and emotional significance of gender identity, defined broadly as the sense of gendered self, has been stressed by scholars in different theoretical paradigms. In adolescence, during pubertal maturation and sexual differentiation of the body, gender identity becomes particularly closely linked to the emotional and psychosocial functioning of the person. As the body matures, it acquires more gendered cultural and symbolic meanings, and the sense of gendered self becomes involved in the regulation of self-esteem (Meissner, 2005). According to the gender intensification hypothesis (Hill & Lynch, 1983), pubertal maturation facilitates the internalisation of gendered social roles, and both adolescents themselves and socialisation agents react increasingly to adolescents as gendered beings.

Adolescence is also characterised by increasing gender differentiation in some aspects of psychological functioning, particularly, some psychological difficulties and aspects of well-being. Empirical findings document consistent gender differences in relation to depression and depressive symptoms (Ge, Conger, & Elder, 2001; Hankin et al., 1998; Nolen-Hoeksema & Girgus, 1994; Priess, Lindberg, & Hyde, 2009); measures of global self-esteem (Birndorf, Ryan, Auinger, & Aten, 2005; Kling, Hyde, Showers, & Buswell, 1999; Simmons & Rosenberg, 1975); interpersonal functioning (Rose & Rudolph, 2006); and the externalisation of problem behaviours (e.g. Archer, 2004). Different models, which have been suggested to explain these empirically-supported gender differences often include a group of factors related to gender identity (e.g. Hyde, Mezulis, & Abramson, 2008; Slater, Guthrie, & Boyd, 2001; Wichstrøm, 1999). These models and supporting empirical findings point to the importance of clarifying the relationship between gender identity and psychological difficulties and well-being in adolescence.

However, large gaps exist in this research field. Most of the psychological, conceptual and empirical work, which has advanced the understanding of gender identity and its links to other aspects of psychological functioning, comes from studies with children. The result of the historical tendency to study gender in childhood is that, at the moment, much less is known about gender identity and various aspects of gender-related functioning in adolescence than in childhood, and this gap has recently been emphasised by several gender researchers (Clemans, DeRose, Graber, & Brooks-Gunn, 2010; Galambos, Berenbaum, & McHale, 2009; Tobin et al., 2010). This study was designed to address the lack of attention to the problem of gender identity and its links to psychological difficulties and well-being in adolescence by applying a contemporary multidimensional approach to gender identity. The study aims to evaluate the links

that particular aspects of adolescent gender identity have with important indicators of psychological difficulties and well-being in adolescence.

2. Scientific problem and novelty of the study

This study contributes to the scientific analysis of adolescent gender identity and its role in predicting important aspects of adolescent psychological functioning. Even though psychological functioning is a broad term that covers a large spectrum of psychological phenomena, including identity, in this study, the term is used to refer to a given set of psychological difficulties and aspects of well-being that are important during adolescence.

The questions regarding whether, and how, particular gender-related factors, such as gender typicality, adherence to stereotypical gender roles or felt pressure to conform to gender norms, are related to various aspects of psychological difficulties and well-being at different ages has long been discussed in psychological literature. Most studies in this area explored how gender identity was linked to particular indicators of difficulties (e.g. depressive symptoms), and well-being (e.g. self-esteem). In other words, the majority of previous studies attempted to address whether certain aspects of gender identity were favourable for a person's psychological functioning. The results of decades of research, however, are inconsistent.

The earliest hypothesis, called the sex-gender congruency hypothesis, suggested that stronger internalisation of masculinity for males and femininity for females was related to optimal psychological functioning (Page & Warkentin, 1938; Terman & Miles, 1936). This hypothesis was later challenged by the concept of androgyny and a suggestion that in order to achieve optimal functioning an individual of any sex had to internalise both masculine and feminine attributes and roles (Bem, 1974, 1981; Bem & Lewis, 1975; Bem, Martyna, & Watson, 1976; Gilbert, 1981; Spence, Helmreich, & Stapp, 1975). This second hypothesis was shortly followed by the masculinity hypothesis, which stated that the internalisation of masculinity (or, more precisely, instrumental traits) was beneficial for both men and women in terms of their psychological functioning (Whitley, 1983). Though early meta-analytic reviews (Bassoff & Glass, 1982; Whitley, 1983, 1985; Taylor & Hall, 1982) supported androgyny and masculinity hypotheses, but not the sex-gender congruency hypothesis, the findings, inconsistent with these conclusions, continued to emerge in the subsequent three decades of research.

These inconsistencies appeared, to a large extent, due to differing approaches to gender identity taken by researchers (Lurye, Zosuls, & Ruble, 2008). Over the decades, the concept of gender identity has varied and changed substantially. Early research was based on either a bipolar or a two-dimensional understanding of the concept as self-attribution of feminine (expressive) or masculine (instrumental) traits. Moreover, the first measures of gender identity included desirable gendered traits only, which biased the findings (Aubé & Koestner, 1992; Holahan & Spence, 1980; Spence, Helmreich, & Holahan, 1979). On the basis of criticisms of these early conceptualisations, a new understanding of gender identity started to emerge in the psychological literature at the beginning of the 1980s. The main feature of this new approach has been an acknowledgement of the multidimensionality of gender-related constructs, including

gender identity (Egan & Perry, 2001; Spence, 1984, 1993; Spence & Buckner, 1995). Even though the components proposed by different authors as elements of gender identity varied to some degree, a consensus among researchers exists today that it is a multidimensional construct.

With the acknowledgement that gender-related psychological phenomena, including gender identity, are complex multidimensional entities, researchers also had to rephrase the question regarding the links between gender identity, and psychological difficulties and well-being. From a contemporary multidimensional understanding, a simple, one-directional hypothesis regarding these links is not possible. Instead, the question has to be viewed on several levels. Firstly, *what are the main dimensions of gender identity*? Secondly, *what are the links between each of the dimensions of gender identity, and particular indicators of difficulties and well-being*? Finally, *what relationships and interactions between gender-identity dimensions are important and what is the relative importance of separate dimensions in predicting psychological difficulties and well-being*?

All of these questions still require scientific exploration, since the multidimensional conceptualisation of gender identity, and research applying this perspective, has only been proposed relatively recently. Accumulating the results from recent research provides support for the existence of the links between different aspects of gender identity, and psychological difficulties and well-being. These studies also show that specific gender-identity dimensions relate differently to particular indicators of difficulties and well-being, in some cases – in opposite ways. However, the findings are not always consistent across studies with regard to particular dimensions and indicators. Moreover, most of the previous studies in this area evaluate the links between separate gender-identity dimensions without controlling for the rest of the construct, that is, other dimensions of gender identity. Thus, unique relationships between gender-identity dimensions and particular indicators of difficulties and well-being remain unclear. In addition, very few previous studies in this area control for other important aspects of gender cognition, particularly, for gender stereotypes, when assessing the links between gender identity and other constructs, which prevents the identification of true relationships (Tobin et al., 2010).

We address the outlined research problems by applying the multidimensional model of gender identity and exploring the dimensions that received the widest interest from researchers over the last decade of research. According to the multidimensional model, gender identity includes gender typicality, gender contentedness, felt pressure to conform to gender norms and potentially other aspects (all discussed in detail in Chapter 3.2). This multidimensional model of gender identity was first conceptualised by Egan and Perry (2001); was subsequently empirically tested by Carver, Yunger and Perry (2003); Yunger, Carver and Perry (2004); Smith and Leaper (2006); Corby, Perry and Hodges (2007); Bos and Sandfort (2010); Yu and Xie (2010); and Jodoin and Julien (2011); and was further revised and contextualised by Tobin et al. (2010) and Perry and Pauletti (2011).

Besides defining the concept of gender identity, it was also crucial in this study to select the most appropriate indicators of psychological difficulties and well-being. The concepts of psychological difficulties and well-being are both very wide and cover a wide range of psychological phenomena. Usually a certain number of indicators, indices or

dimensions of difficulties and well-being are selected to be included in a study. However, the set of indicators used varies quite considerably across psychological studies – it can be determined by the age group under study or the field of interest of the researcher. The selection of particular indicators in this study was based upon the following three principles: 1) the use of a balanced number of indicators of psychological difficulties and well-being; 2) theoretical validity, that is, the existence of a theoretical hypothesis regarding the link between gender identity and a particular indicator of psychological functioning; or the existence of an etiological model for a particular difficulty or aspect of well-being that includes some aspects of gender identity; and 3) the prioritising of the indicators recommended in the literature as the most developmentally relevant for the period of adolescence. Based on these principles, a battery of indicators was formed, which included three measures of psychological difficulties (depressive symptoms, loneliness and delinquency), and three measures of well-being (self-esteem, self-efficacy and satisfaction with one's life).

3. Aims of the study

This study had two broad *aims as follows*: 1) to identify and validate the structure of gender identity in a middle- to late-adolescent sample in Lithuania; and 2) to identify the links between gender-identity dimensions and selected indicators of psychological difficulties and well-being. The expected *contribution to the field was*: 1) empirically extending the multidimensional understanding of gender identity to middle to late adolescence; 2) identifying the direction and strength of unique links between the dimensions of gender identity and important indicators of adolescent psychological difficulties and well-being; 3) evaluating the extent to which a given set of gender-identity dimensions may contribute to explaining particular difficulties and aspects of well-being in adolescence.

4. Hypotheses of the study

H1: the identified structure of gender identity is invariant by gender and grade of adolescents;

H2: the gender-identity dimensions are positively related to, but do not overlap with, trait sex typing, adherence to adolescent gender ideologies and gender-role stereotypes;

H3: higher gender typicality and higher gender contentedness are related to lower levels of psychological difficulties and higher well-being, while higher felt pressure and stronger adherence to gender stereotypes are related to a higher level of psychological difficulties and a lower level of well-being;

H4: gender moderates the links between gender-identity dimensions and selected indicators of psychological difficulties and well-being.

5. Methodology

Participants. In total, 530 adolescents, aged 14–19 years ($M = 16.01$, $SD = 0.97$), participated in this school-based survey. Slightly more boys ($n = 282$, 53.2%) than girls ($n = 248$, 46.8%) took part, but the proportion did not differ significantly from the

expected 50:50 ratio (χ^2 = 2.18, df = 1, p = .14). The participants included adolescents from different grades, types of schools, school locations and ethnicities. The frame of the population under study was defined as ninth to eleventh grade students in the biggest administrative region of Lithuania – the Vilnius region. This region was chosen based on convenience (proximity to the university) and accessibility (several schools in this region had a cooperation agreement with the university). The sampling was carried out applying a pre-defined quota, calculated on the basis of the regional data provided by Statistics Lithuania (see Annex A). The sample was chosen by conveniently selecting particular schools and classes according to the quota.

The number of students, gender and age distribution by grade are presented in Table 1. In the study's sample, there were slightly more tenth grade (37.2%) and slightly less ninth grade (28.5%) students compared to the proportion in the Vilnius region (33%, 32% and 35%, respectively; χ^2 = 7.76, df = 2, p = .02). Adolescents came from two high schools (n = 228, 43%) and three gymnasiums (n= 302, 57%). This proportion did not differ significantly from that in the region (45% and 55%, respectively, specialised schools excluded; χ^2 = 0.84, df = 1, p = .36). Three schools were located in Vilnius and two were based in more peripheral locations of the region. The overall share of students attending the capital's schools was 67% (equal to the proportion in the whole region). The rest (33%) of the participants came from one peripheral city school (22%) and one rural school (11%) in the Vilnius region. The ethnic structure of our sample was similar to that in the general population of the country – the proportion of ethnic Lithuanian participants was 81.5% of the sample (compared to 83.9% in a general population). Ethnic minorities in our sample included Poles (10%), Russians (3.7%) and other ethnic groups (1%) (the rest did not indicate their ethnicity).

Table 1. *Distribution of Study Participants in Different Grades by Gender and Age*

Grade	Ninth	Tenth	Eleventh
n (%)	151 (28.5)	197 (37.2)	182 (34.3)
Gender (n girls/n boys)	77/74	80/117	91/91
Age (M (SD))	14.83 (0.44)	16.06 (0.55)	16.93 (0.50)

The convenience quota sample collected for this study can be considered as representative of the general population of ninth to eleventh grade students in the Vilnius region. Since the system of schools in the Vilnius region is similar to that in other administrative regions of Lithuania, the study's sample can be considered comparable to the population of ninth to eleventh grade students in the country with regard to the following characteristics: gender, grade, ethnicity and type of school attended. However, with regard to the type of residential area, the similarity of the sample to the population of ninth to eleventh graders in the country has serious limitations – residence in the capital city may be distinct in many aspects from residence in major cities of the other administrative regions in Lithuania.

Procedure. Data collection took place between December 2011 and February 2012. Firstly, schools that had a cooperation agreement with the university were invited

to participate in the study. Four out of the five initially-addressed schools accepted the invitation. One school declined due to an overload of requests from researchers. Another school of the same type and similar in size and location was approached instead. Within the five participating schools, two classes of students for each grade were selected by convenience and all of the students in these classes were invited to participate in the study.

Students were recruited in classrooms during school hours. Questionnaires were completed in class during school hours and administered by trained researchers. Teachers were not present during this process. The questionnaire took from 25 to 45 minutes to complete. Students were informed that participation was voluntary, anonymous and confidential; they were assured that their answers would not be revealed to parents, teachers or anyone else. The adolescents were informed that they were free to end participation in the study at any time.

A passive parental consent procedure was employed. Parents were informed of the study by letter (in either print or electronic form) and were asked to contact the researchers if they did not want their children to participate. Students whose parents objected to their child's participation (1% of initially contacted adolescents) did not participate in the survey. In addition, the sample does not include students who were absent from school on the day of data collection due to various reasons (20% of the overall number of students in selected classes).

Instruments. Measures for gender-related constructs in this study included the *Adolescent Gender Identity Scales* (AGIS, constructed for this study, based on Egan & Perry, 2001); *Adolescent Gender Role Stereotypes* (AGRS, constructed for this study); the *Trait subscale* from the *Occupations Activities Traits* short scales (OAT, short version, Liben & Bigler, 2002); the *Adolescent Femininity Ideology Scale* (AFIS, Tolman & Porche, 2000; Tolman et al., 2006); and the *Adolescent Masculinity Ideology in Relationships Scale* (AMIRS, Chu, Porche, & Tolman, 2005). The first two scales were the main instruments of the study, while the rest of the gender-related scales were used to assess the discriminant validity of gender-identity scales. Psychometric characteristics of the scales are presented in Table 4.

Table 4. *Psychometric Characteristics of Measures for Gender-Related Constructs*

Scale	Subscales	Number of items	Cronbach's alpha	Test–retest $n = 17$
Adolescent Gender Identity Scales (AGIS, constructed for this study, based on Egan & Perry, 2001)	Gender typicality	8	.86	.73
	Gender contentedness	3	.70	.54
	Gender oppression	6	.69	.89
	Felt pressure	10	.90	.80

Scale Subscales		Number of items	Cronbach's alpha	Test–retest $n = 17$
Adolescent Gender Role Stereotypes (AGRS, constructed for this study)		10	.79	.81
Trait subscale from the *Occupations Activities Traits* short scales (OAT, short version, Liben & Bigler, 2002)	Masculine traits	10	.76	.75
	Feminine traits	10	.61	.82
Adolescent Femininity Ideology Scale (AFIS, Tolman & Porche, 2000; Tolman et al., 2006)	Inauthentic self in relationships	8	.56	.92
	Objectified body consciousness	9	.79	.95
Adolescent Masculinity Ideology in Relationships Scale (AMIRS, Chu, Porche, & Tolman, 2005)		12	.66	.86

Note. The retest was carried out with a convenience subsample (one class of eleventh grade participants) two weeks after the main study.

Measures for difficulties in psychological functioning included the *Centre for Epidemiological Studies Depression Scale for Children* (CES-DC, Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986); the *Peer-Related Loneliness Subscale* from the *Loneliness and Aloneness Scale for Children and Adolescents* (LACA, Marcoen et al., 1987); and the *Delinquent Behaviour Scale* (based on Persson, Kerr, and Stattin, 2007, and Magnusson, Dunér, and Zetterblom, 1975). The structural validity of these measures was tested using confirmatory factor analysis (CFA) with parcelled indicators for each of the latent factors. Three to four parcels per latent variable were created based on item–item covariances and the conceptual similarity between items. The results of the CFA indicated a good overall fit of the implied factor structure to the data: χ^2 (30, $N = 530$) = 126, $p < .001$; CFI = .96; RMSEA = .08; SRMR = .05. The loadings for the parcelled measurement model for negative aspects of psychological-functioning indicators are presented in Figure B.1 in Annex B.

Measures of well-being included the *Rosenberg Self-Esteem Scale* (RSES, Rosenberg, 1965); the *Generalized Self-Efficacy Scale* (GSES, Schwarzer & Jerusalem, 1995), and the *Multidimensional Students' Life Satisfaction Scale* (MSLSS, Huebner, 2001). The structural validity of these measures was tested in a CFA with parcelled indicators for each of the latent factors. Three to four parcels per latent variable were created based on item–item covariances and conceptual similarity between the items. Results of the CFA indicated a good overall fit of the implied factor structure to the data: χ^2 (30, $N = 530$) = 126, $p < .001$; CFI = .96; RMSEA = .08; SRMR = .05. The loadings for the parcelled measurement model of positive aspects of psychological-functioning indicators are presented in Figure B.2 in Annex B. Psychometric characteristics of the scales are presented in Table 5.

Table 5. *Psychometric Characteristics of Scales Measuring Psychological Difficulties and Aspects of Well-Being*

Scale	Number of items	Cronbach's alpha
Centre for Epidemiological Studies Depression Scale for Children (CES-DC, Faulstich, Carey, Ruggiero, Enyart, & Gresham,, 1986)	20	.85
Peer-Related Loneliness Subscale from *Loneliness and Aloneness Scale for Children and Adolescents* (LACA, Marcoen et. al., 1987)	12	.91
Delinquent Behavior Scale (based on Persson, Kerr, and Stattin, 2007, and Magnusson, Dunér, and Zetterblom, 1975)	12	.79
Rosenberg Self-Esteem Scale (RSES, Rosenberg, 1965)	10	.82
Generalized Self-Efficacy Scale (GSES, Schwarzer and Jerusalem, 1995)	10	.90
Multidimensional Students' Life Satisfaction Scale (MSLSS, Huebner, 2001)	5	.70

Data analyses. The main analyses of the study data was carried out in an SEM framework using Mplus 5.2 (Muthén & Muthén, 1998–2007) with Maximum Likelihood estimation. Descriptive analyses and multivariate analyses of variance (MANOVA) were carried out using SPSS 17. Analysis of the data followed three main steps. Firstly, exploratory factor analysis (EFA) with GEOMIN rotation was applied to identify the latent structure of gender identity and gender-stereotypes scales. The invariance of identified factor structure by gender and grade was tested using multi-group CFA. Pearson's correlation coefficient was then calculated for gender-related scales in order to assess the discriminant validity of gender-identity subscales. The second step in the process of data analysis included calculation of sample distributions and other descriptive statistics of the main variables in the study, and estimation of gender and grade effects on the variances of gender identity and gender stereotypes scales using MANOVA. Finally, structural equation models were formed to test the main hypotheses of the study regarding the links between gender-identity dimensions and selected indicators of adolescent psychological functioning.

To evaluate the goodness of fit in an SEM framework, four indicators were used: the chi-square test, Comparative Fit Index (CFI), Root Mean Square of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). There is an ongoing discussion regarding the cut-off points for the fit indices in SEM (e.g. Marsh, Hau, & Wen, 2004). Cut-off values were applied as follows: close to .95 for CFIs, close to .06 for RMSEAs and close to .07 for SRMRs to indicate a good fit between the hypothesised model and observed data, as suggested by Hu and Bentler (1998); and over .90 for CFIs, below .80 for RMSEAs and below .10 for SRMRs to indicate a reasonable model fit (Kline, 2005).

6. Main results

Structure of gender identity and gender stereotypes. EFA was carried out with items developed to measure adolescent gender identity. The results of EFA showed that four-factor solution had a good overall fit to the data: χ^2 (249, $N = 530$) = 761, $p < .001$; CFI = .90; RMSEA = .06; SRMR = .04. Three of the retained gender identity factors were the same as in previous published studies applying multidimensional approach to gender identity, and one was relatively unique. The first factor represented gender typicality (eight items), that is, the degree to which adolescents felt typical with regard to their own gender group on several important aspects: character, leisure, opinions, appearance, behaviour, aims and things viewed as important. Another factor represented felt pressure to conform to gender norms (10 items), that is, perceived negative reactions from peers, parents, teachers and self in case of non-conformity to gender norms. The third factor represented gender contentedness (three items), that is, satisfaction with one's gender role. The last factor represented gender oppression (six items), that is, discontent with gender-based social limitations, restrictions and discrimination. This factor was relatively unique, since it was not discussed in previously published studies in the field, but only appeared in unpublished materials. Similarly as in previous studies, gender typicality, gender contentedness and felt normative pressure had weak to moderate positive links with one another. The dimension of gender oppression showed the tendency for weak negative links with gender contentedness and felt pressure.

EFA was also carried out with items developed to measure adolescent gender-role stereotypes. EFA results showed that one-factor solution had a good fit to the data: χ^2 (35, $N = 530$) = 117, $p < .001$; CFI = .92; RMSEA = .07; SRMR = .04. Thus, a one-dimensional structure of gender-role stereotypes was supported in this study. In order to reduce the complexity of models in subsequent analysis, indicators for latent gender identity and stereotypes factors were parcelled and CFA was run to check the fit of the parcelled model to the data. Results of the CFA indicated good overall fit of the implied factor structure to the data: χ^2 (94, $N = 530$) = 237, $p < .001$; CFI = .95; RMSEA = .05; SRMR = .04. The loadings for the parcelled measurement model for gender identity and stereotypes are presented in Figure C.3 in Annex C.

In order to test the first hypothesis (H1) regarding factorial invariance by gender and grade the criteria for partial measurement invariance, defined by Meredith (1993) as strong factorial invariance, were applied and the moderation procedure described by Holmbeck (1997) was followed. constrained and unconstrained. For the constrained condition, Mplus 5.2 default options were applied: intercepts and factor loadings constrained to be equal across groups; residual variances free; factor means were zero for girls and free for boys (Muthén & Muthén, 1998). For the unconstrained condition, factor loadings were released to vary across the groups, and factor variances were fixed at 1. The fit indices for the two models are presented in Table 11. The chi-square difference between the models is significant at $\alpha = .001$. Constraining the paths to be equal significantly reduced the fit of the overall model to the data, thus indicating that some paths of the model may differ for girls and boys. the moderation procedure defined by Holmbeck (1997) was applied. The constrained condition had Mplus 5.2 default settings (intercepts and factor loadings constrained to be equal across groups;

residual variances free; factor means were zero for girls and free for boys (Muthén & Muthén, 1998)). For the unconstrained condition, factor loadings were released to vary across the groups, and factor variances were fixed at 1. The results suggested that there was adequate invariance of the identified factor structure across gender groups, since changes in fit indices did not reach recommended thresholds for large samples (change of $\geq$ .010 in CFI, supplemented by a change of $\geq$ .015 in RMSEA or a change of $\geq$ .030 in SRMR (Chen, 2007)). The same procedure was applied to test factorial invariance across different grades (ninth, tenth and eleventh). The results also supported factorial invariance across grade groups since changes in model fit did not reach recommended thresholds. Thus, factor invariance was supported across gender groups and different grades.

To test the validation hypothesis (H2) regarding the links between gender-identity dimensions and other gender-related constructs in the study, Pearson correlation analysis was applied. Discriminant validity of gender-identity dimensions was operationalised as positive, but not high, correlations with trait sex typing, adherence to adolescent gender ideologies and gender-role stereotypes. In line with the prediction, some weak positive correlations were observed between gender-identity dimensions and trait sex typing of the self. Statistically significant weak to moderate links were also observed between gender-identity dimensions and adolescent gender ideologies. As predicted, gender-identity dimensions were also positively linked to gender-role stereotypes, significant links ranged from weak to moderate. The tests of the second hypothesis of the study supported discriminant validity of gender-identity dimensions. Gender-identity dimensions were positively related to, but did not overlap with, other gender-related constructs – trait sex typing, adolescent gender ideologies and gender-role stereotypes.

Links between gender identity and psychological difficulties and well-being. In order to test the third hypothesis (H3) and to identify the unique links between gender-identity dimensions and particular indicators of psychological difficulties and well-being, an SEM framework was applied. An SEM model with direct paths from gender-identity latent variables (gender typicality, gender contentedness, gender oppression and felt pressure) and gender-role stereotypes (in order to control for their effects) to psychological-functioning latent variables was constructed. The model was constructed separately for indicators of difficulties (depressive symptoms, loneliness and delinquent behaviour, depicted in Figure 1) and well-being (self-esteem, self-efficacy and satisfaction with life, depicted in Figure 2) in order that the models would remain parsimonious and not too complex. The analysis confirmed a good fit for both specified models to the data. Statistically significant links in the models are depicted with black arrows. Insignificant links are depicted with grey arrows.

In the case of indicators of difficulties in psychological functioning, the model-fit indices were: $\chi^2(296, N = 530) = 471$, $p < .001$; CFI = .93; RMSEA = .05; SRMR = .05. As illustrated in Figure 2, higher gender contentedness was related to lower depressive symptoms and loneliness, while gender oppression had a positive relationship with both depressive symptoms and loneliness. In addition, higher adherence to stereotypes was related to more delinquency.
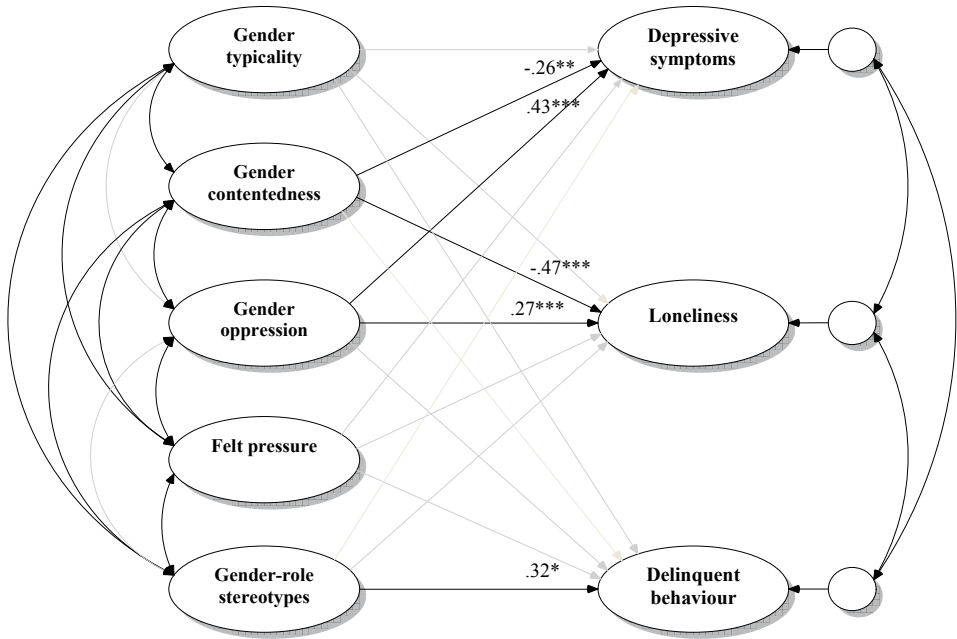
Figure 1. Model 1 – effects of gender identity on indicators of psychological difficulties (gender-role stereotypes controlled), *N* = 530. *Note.* *p < .05, ** p < .01, *** p < .001.
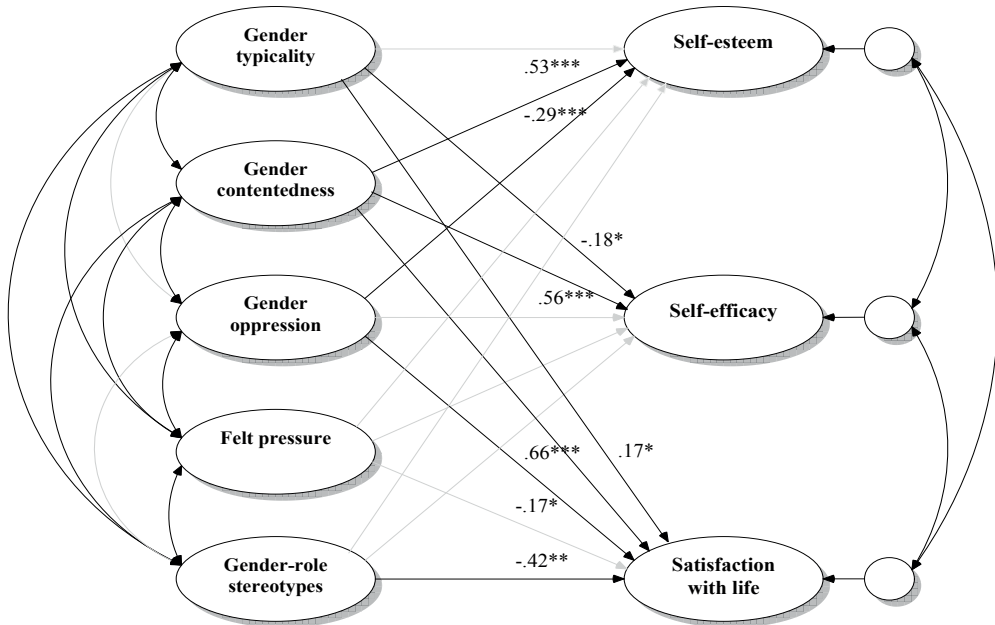

Figure 2. Model 2 – effects of gender identity on well-being indicators (gender-role stereotypes controlled), *N* = 524. *Note.* *p < .05, ** p < .01, *** p < .001.

In the case of well-being indicators, the model-fit indices were: χ^2(296, N = 524) = 669, p < .001; CFI = .93; RMSEA = .05; SRMR = .05. As illustrated in Figure 3, higher gender contentedness was related to higher scores on self-esteem, while gender oppression had a negative relationship with self-esteem. Gender contentedness was also positively related to self-efficacy, while gender typicality had a weaker negative link to self-efficacy. Subjective satisfaction with life was significantly predicted by four gender-related constructs – higher gender typicality and higher gender contentedness were related to higher satisfaction with life, while higher gender oppression and stronger adherence to gender-role stereotypes was related to lower satisfaction with life.

In addition to direct paths, some indirect paths were estimated using the Model Indirect command in Mplus 5.2 and a bootstrap estimation of indirect effects with 1,000 bootstrap draws. Particularly, indirect paths from gender typicality and felt pressure to indicators of difficulties and well-being, with gender contentedness, gender oppression and gender stereotypes as potential mediators, were estimated. Given the large sample size and the relatively high complexity of the model, in order to avoid significant effects that are close to zero, a more strict alpha level was chosen (α = .01). The analysis provided additional information on the links between gender typicality and indicators of psychological functioning. Gender typicality had statistically significant indirect effects on four indicators of psychological functioning: loneliness (β = -.21; p < .01; 99% CI = -.37 to -.05); self-esteem (β = .25; p < .01; 99% CI = .06 to .44); self-efficacy (β = .23; p < .01; 99% CI = .06 to .40); and satisfaction with life (β = .37; p < .01; 99% CI = .16 to .57). All of these paths from gender typicality went through gender contentedness – higher gender typicality predicted higher gender contentedness, which in turn predicted lower levels of loneliness, higher self-esteem, greater self-efficacy and higher satisfaction with life. Thus, gender typicality had numerous indirect effects on the indicators of psychological functioning.

To summarise, the analysis provided support for most of the hypothesised paths from gender-cognition elements to indicators of psychological functioning. Significant paths in the models were in the predicted direction: higher gender contentedness (directly) and higher gender typicality (mostly indirectly) were related to lower levels of psychological difficulties and higher positive aspects of psychological functioning, while higher felt gender oppression and stronger adherence to gender stereotypes were both directly related to more psychological difficulties and lower well-being. Although, contrary to expectation, felt pressure for gender conformity did not have direct links to any of the psychological-functioning indicators in the models where gender-role stereotypes were controlled, the expected negative relationships with indicators of well-being appeared when gender-role stereotypes were not included in the model. One link in the unexpected direction was a negative relationship between gender typicality and self-efficacy. The results also showed that the models accounted for a substantial share of most of the indicators of psychological functioning measured in our study except for delinquent behaviour. Gender-identity dimensions accounted for 33% of variance in depressive symptoms, loneliness and self-esteem, 19% of self-efficacy and 44% of subjective satisfaction with life.

To test the fourth hypothesis (H4) of the study, which predicted that gender would moderate the links between gender-cognition elements and selected indicators of psychological functioning, the two models above were tested in a multi-group analysis procedure as described by Holmbeck (1997). The results did not provide support for the hypothesised moderation by gender – the links between gender-cognition elements (gender-identity dimensions and gender-role stereotypes) and indicators of different aspects of psychological functioning of adolescents did not vary by gender.

7. Discussion

The results of the study contribute to three aspects of gender-related research in psychology. *Firstly,* this study has been one of the first attempts to apply a multidimensional approach in conceptualising adolescent gender identity and extending the structure of gender identity, previously identified in children and early adolescents, to the period of middle to late adolescence. The results of our study indicate that the three most widely examined dimensions of gender identity – gender typicality, gender contentedness and felt pressure – are also meaningful constructs in describing gender identity in middle to late adolescence. In addition, our results suggest that there might be another dimension of gender identity – the level of felt gender oppression – which is relevant in middle to late adolescence. The latter finding is new in the context of published empirical studies in the field, and as such, needs further validation and verification. Nevertheless, it suggests that the structural aspects of gender, such as social inequality, may be an important area to consider when exploring gender identity. Early in life, children notice gender inequalities, and power and status difference between men and women. This may be particularly relevant in adolescence when cognitive developmental changes create a possibility for the critical re-appraisal of social norms, stereotypes and self. Unsurprisingly, the structural aspects of gender, such as gender-based inequality and discrimination, may be reflected in adolescent self-representations as one of the dimensions of gender identity as was suggested by this study's findings. The structure of gender identity, retained in the study, is also supported by the fact that discriminant validation hypothesis was confirmed. Gender-identity dimensions were positively related to, but did not overlap with other gender-related constructs (trait sex typing, adolescent gender ideologies and gender-role stereotypes).

Secondly, the findings from this research advance knowledge regarding the links between gender identity and other aspects of psychosocial functioning by specifying the unique effect of adolescent gender-identity dimensions on psychological difficulties and aspects of well-being. In contrast with the majority of previous studies in the field, in this study, these effects were estimated taking into account the shared variance between the dimensions of gender identity and their relationships with gender-role stereotypes. This allowed for increased accuracy in the identification of the relative weight and role of each gender-identity dimension in predicting important aspects of the psychological functioning of adolescents.

The study showed that gender-identity dimensions and gender-roles stereotypes accounted for a significant and substantial share of the variance of the indicators of psychological functioning used in the study (from 19% to 44%), except for delinquent

behaviour. Empirical support was found for most of the hypothesised paths between gender cognition elements and psychological-functioning indicators. Higher gender contentedness (directly) and higher gender typicality (mostly indirectly) were related to lower levels of psychological difficulties and higher positive aspects of psychological functioning, while higher felt gender oppression and stronger adherence to gender stereotypes were both directly related to more psychological difficulties and decreased feelings of well-being. Gender typicality was negatively related to self-efficacy. Our results strongly suggest that the dimension of gender contentedness acquires a key role in predicting important aspects of psychological functioning in middle to late adolescence. Thus, in this developmental period, the relative weights and roles of separate gender-identity dimensions may be different to pre-adolescence and early adolescence, when gender typicality is reported to be the strongest predictor of difficulties and well-being.

Thirdly, the study completes the gap in moderation and factor-structure invariance tests that were missing from previous studies in this field. Such tests were carried out, in the study, with regard to gender and grade. The results show that the identified dimensions of gender identity, and their links to a set of psychological difficulties and aspects of well-being, do not vary by gender, that is, they describe adolescents of both genders. The factor structure of gender identity also remains stable for adolescents in different grades.

8. Conclusions

1. Four unique dimensions describe adolescent gender identity: gender typicality, gender contentedness, felt pressure for gender conformity and gender oppression.
2. The structure of adolescent gender identity is invariant by gender and grade.
3. The dimensions of gender identity have discriminant validity with regard to trait sex typing, adolescent gender ideologies and gender-role stereotypes.
4. Identified gender-identity dimensions significantly predict indicators of psychological difficulties (depressive symptoms, loneliness and delinquent behaviour) and well-being (self-esteem, self-efficacy and satisfaction with life) in adolescence:
   4.1 Higher gender contentedness (directly) and higher gender typicality (mostly indirectly) predict lower levels of psychological difficulties and higher positive aspects of psychological functioning.
   4.2 Higher felt gender oppression and stronger adherence to gender-role stereotypes predict more psychological difficulties and lower scores on well-being indicators.
   4.3 Felt pressure for gender conformity predicts psychological functioning (negatively linked to self-esteem and satisfaction with life) only when gender-role stereotypes are not controlled for.
   4.4 Gender typicality and self-efficacy have a weak negative relationship.
   4.5 The dimension of gender contentedness acquires a key role in predicting important aspects of adolescent psychological functioning.

5. Gender-identity dimensions and gender-role stereotypes account for a significant and substantial share of variance of the indicators of psychological functioning measured in this study (from 19% to 44%), except for delinquent behaviour.
6. Identified links between gender identity, gender-role stereotypes and indicators of psychological functioning apply equally to both gender groups.

Approbation of study results

The doctoral dissertation was discussed and approbated at a meeting of the Institute of Psychology of Mykolas Romeris University, which took place on 10 January 2013. The research findings were also approbated through participation in scientific conferences and papers in scholarly journals.

List of scientific publications

Some results of this doctoral study were published in the following scientific papers:

1. **Erentaitė, R.,** Malinauskienė, O. (2012). Moteriškumo ideologijos sąsajos su paauglių merginų depresiškumu, savęs vertinimu bei subjektyviu pasitenkinimu gyvenimu. *Tarptautinis psichologijos žurnalas: Biopsichosocialinis požiūris*, *11*, 49-74. doi: 10.7220/1941-7233.11.3.
2. **Erentaitė, R.**, Žukauskienė, R. (2010). Gender identity and internalizing symptoms among Lithuanian adolescents. R. Žukauskienė (Ed.) *Proceedings of the XIV European Conference on Developmental Psychology* (pp. 524–529). Bologna: Medimond. ISBN 978-88-7587-584-8.
3. Malinauskienė O., Vosylis R., **Erentaitė R.**, Žukauskienė R. (2010). Vyresniųjų paauglių lyties tapatumo ir tėvų auklėjimo stiliaus ryšiai. *Socialinis darbas, 9*(2), 135–143. ISSN 1648-4789.
4. **Erentaitė, R.** (2009). Lyties tapatumo dimensijos ir psichologinis prisitaikymas vėlyvojoje paauglystėje. In I. Salialionė, A. Kairys (Eds.) *Žmogus XXI amžiuje: kas naujo? VI Jaunųjų mokslininkų psichologų konferencija.* (pp. 82–89). Vilnius: Vilniaus universiteto leidykla. ISBN 978-9955-33-457-6.

Other related publications over the period of doctoral studies:

Publications referred in Thomson-Reuters (ISI) Web of Science

1. Berne, S. Frisén, A., Schultze-Krumbholz, A., Scheithauer, H., Naruskov, K., Luik, P., Katzer, C., **Erentaite, R.,** Zukauskiene, R. (2013). Cyberbullying assessment instruments: A systematic review. *Aggression and Violent Behavior*, *18(2)*, 320–334. doi: 10.1016/j.avb.2012.11.022
2. **Erentaitė, R.,** Žukauskienė, R., Beyers, W., Pilkauskaitė-Valickienė, R. (2012). Is news media related to civic engagement? The effects of interest in and discussions about the news media on current and future civic engagement of adolescents. *Journal of Adolescence*, *35(3)*, 587–597. doi: 10.1016/j.adolescence.2011.12.008

3. **Erentaitė, R.,** Bergman, L.R., Žukauskienė, R. (2012). Cross-contextual stability of bullying victimization: A person-oriented analysis of cyber and traditional bullying experiences among adolescents. *Scandinavian Journal of Psychology*, *53(2)*, 181–190. doi: 10.1111/j.1467-9450.2011.00935.x

4. **Erentaitė, R.** (2011). 'We are simply more beautiful': counterstories of Lithuanian migrant women in London. In E. H. Oleksy, J. Hearn, & D. Golanska (Eds.) *The limits of gendered citizenship. Contexts and complexities* (pp. 212–225). London: Routlegde.

Publications referred in other international scientific databases

1. **Erentaitė, R.,** Pilinkaitė-Sotirovič, V. (2012). Lyties aspektas migracijos procesuose: trečiųjų šalių piliečių situacijos Lietuvoje analizė. Etniškumo studijos, *12(1–2)*, 178–203. ISSN 1822-1041.

2. Žukauskienė, R., Malinauskienė, O., **Erentaitė, R.** (2011). Tėvų auklėjimo stiliaus ir emocinio intelekto sąsajos su vyresniųjų paauglių saviveiksmingumu bei saviverte pagal lytį. *Psichologija*, *44*, 22–41. ISSN 1392-0359.

Selected conference presentations

1. **Erentaitė, R.** (2011, May). Vyresnių paauglių merginų moteriškumo ideologijos ir emocinių sunkumų sąsajos. Paper presented at the Lithuanian Congress of Psychology (Psichologija pokyčių laikotarpiu: Lietuvos psichologų kongresas), Vytautas Magnus University, Kaunas.

2. **Erentaitė, R.** & Žukauskienė, R. (2010, July). Gender identity and peer victimization: different interactions for adolescent boys and girls. Poster presented at the 21st Biennial Congress of the International Society for the Study of Behavioural Development, Lusaka.

3. **Erentaitė, R.** & Žukauskienė, R. (2010, April). Gender-related pressures and well-being among late adolescents: The role of gender contentedness and felt normative pressure. Poster presented at the 4th Gender Development Research Conference, San Francisco, California.

4. **Erentaitė, R.**, Ustinavičiūtė, L., & Žukauskienė, R. (2009, August). Victims and bullies in cyber space: Does gender identity play a role? Poster presented at the 14th European Conference on Developmental Psychology, post conference workshop Cyberbullying: Definitions and Measurement Issues, Mykolas Romeris University, Vilnius.

5. **Erentaitė, R.** & Žukauskienė, R. (2009, August). Multidimensional gender identity: Implications for psychosocial adjustment in late adolescence. Poster presented at the 14th European Conference on Developmental Psychology, Mykolas Romeris University, Vilnius.

6. **Erentaitė, R.** (2009, May). Gender identity dimensions and psychosocial adjustment in late adolescence. Poster presented at the UPSIDE conference The Nuts and Bolts of Longitudinal Research, Uppsala.

7. **Erentaitė R.** (2009, May). Lyties tapatumo dimensijos ir psichologinis prisitaikymas vėlyvojoje paauglystėje. Paper presented at the 6th Young Psychology Researchers Conference, Vilnius University, Vilnius.

8. **Erentaitė, R.** (2008, September). Gender compatibility and adjustment from a longitudinal perspective: data analysis plan. Paper presented at the meeting of the Baltic-Nordic Network of Graduate Psychology Students, Vilnius University, Vilnius.

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MYKOLO ROMERIO UNIVERSITETAS

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LYTIES TAPATUMAS IR JO SĄSAJOS SU KITAIS PSICHOLOGINIO FUNKCIONAVIMO ASPEKTAIS PAAUGLYSTĖJE

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Rasa Erentaitė

LYTIES TAPATUMAS IR JO SĄSAJOS SU KITAIS PSICHOLOGINIO FUNKCIONAVIMO ASPEKTAIS PAAUGLYSTĖJE

Santrauka

1. Darbo aktualumas

Lyties tapatumas, t. y., savęs kaip lytiško subjekto suvokimas, gali turėti labai didelę reikšmę asmens psichologiniam ir emociniam funkcionavimui. Ypač lyties tapatumo vaidmuo aktualus paauglystėje, kuomet vyksta lytinis brendimas ir su juo susiję procesai. Dėl lytiškai bręstančio kūno, ryškėjančių lytiškumo požymių, didėjančios diferenciacijos pagal lytį paaugliai vis intensyviau susiduria su lyties kultūrinėmis ir simbolinėmis prasmėmis. Aplinkinių paaugliai vis labiau suvokiami kaip lytiškos būtybės, jiems keliami lūkesčiai, susiję su socialiniais lyties vaidmenimis, kultūrinėmis lyties normomis (Hill & Lynch, 1983). Per kurį laiką šie su lytimi susiję lūkesčiai daugiau ar mažiau perimami, tampa vidinėmis gairėmis, savireguliacijos dalimi (Bussey, 2011). Nuo to, kiek pavyksta tuos perimtus lūkesčius atitikti, iš dalies priklauso ir paauglio savęs vertinimas (Meissner, 2005).

Paauglystėje ryškėjanti diferenciacija pagal lytį siejama ir su tam tikrais lyčių skirtumais psichologinių sunkumų ir gerovės srityse. Empirinių tyrimų duomenys rodo, kad merginų labiau išreikšti depresiškumo simptomai (Ge, Conger, & Elder, 2001; Hankin et al., 1998), žemesni bendrosios savivertės įverčiai (Birndorf, Ryan, Auinger, & Aten, 2005; Kling, Hyde, Showers, & Buswell, 1999; Simmons & Rosenberg, 1975), vaikinams labiau būdingi eksternalūs sunkumai (Archer, 2004). Bandant paaiškinti šiuos skirtumus, be įvairių biologinių, emocinių bei kognityvinių rizikos veiksnių atkreipiamas dėmesys ir į lyties socializacijos veiksnius, su kuriais paaugliai bręsdami susiduria savo kultūriniame kontekste ir kurie tampa jų lyties tapatumo dalimi (Hyde, Mezulis, & Abramson, 2008; Slater, Guthrie, & Boyd, 2001; Wichstrøm, 1999). Tai, jog aiškinant paauglių psichologinių sunkumų ir gerovės ypatumus atsižvelgiama ir į lyties tapatumą bei su juo susijusius veiksnius, rodo, kaip svarbu yra nuodugniau ištirti lyties tapatumo sąsajas su kitais psichologinio funkcionavimo aspektais paauglystėje.

Vis dėlto didžioji dalis teorinių ir empirinių darbų, atskleidusių lyties tapatumo ypatumus bei jo sąsajas su kitais psichologinio funkcionavimo aspektais, buvo atlikta nagrinėjant vaikystės raidos tarpsnį. Dėl tokios mokslinėje literatūroje susiklosčiusios tendencijos galima konstatuoti, jog šiuo metu kur kas mažiau yra žinoma apie lyties tapatumą bei jo sąsajas su kitais psichologinio funkcionavimo aspektais paauglysteje, nei vaikystėje. Šią mokslinių tyrimų spragą pastaraisiais metais akcentavo bent keletas lyties tapatumo bei susijusių sričių tyrėjų (Clemans, DeRose, Graber, & Brooks-Gunn, 2010; Galambos, Berenbaum, & McHale, 2009; Tobin et al., 2010). Atsižvelgiant į esamą situaciją, šiuo darbu siekiama išsiaiškinti būtent paauglystėje išryškėjančius lyties tapatumo bei jo sąsajų su kitais psichologinio funkcionavimo aspektais ypatumus. Darbe remiamasi šiuolaikiniu daugiamačiu požiūriu į lyties tapatumą siekiant įvertinti, kaip tam tikri paauglių lyties tapatumo aspektai susiję su paauglystėje svarbiais psichologinio funkcionavimo rodikliais.

2. Darbo mokslinė problema ir naujumas

Šiuo tyrimu siekiama papildyti žinias apie paauglių lyties tapatumą ir jo vaidmenį prognozuojant svarbius paauglių psichologinio funkcionavimo aspektus. Nors psichologinio funkcionavimo sąvoka yra itin plati, apimanti labai didelį psichologinių fenomenų spektrą, šiame darbe dėl patogumo ji vartojama kur kas siauresne prasme, siekiant bendrai įvardinti tam tikrus paauglystėje svarbius psichologinių sunkumų ir gerovės aspektų rodiklius.

Klausimas, kokį ryšį lyties tapatumas ir su juo susiję veiksniai turi su psichologiniais sunkumais bei įvairiais gerovės aspektais įvairiais amžiaus tarpsniais, psichologinėje literatūroje nagrinėjamas jau ilgą laiką. Daugelis tyrimų šioje srityje siekė nustatyti sąsajas tarp konkrečių su lyties tapatumu susijusių veiksnių, pavyzdžiui, lyties tipiškumo, ir pavienių psichologinių sunkumų ar gerovės rodiklių, pavyzdžiui, depresiškumo ar savivertės. Kitaip tariant, buvo siekiama įvertinti, ar tam tikri lyties tapatumo aspektai yra palankūs asmens psichologiniam funkcionavimui. Vis dėlto galima konstatuoti, kad dešimtmečius trunkantys tyrinėjimai vienareikšmiško atsakymo į šį klausimą nepateikė.

Ankstyviausia hipotezė šiame tyrimų lauke, vadinamoji biologinės-socialinės lyties dermės hipotezė (angl. *sex-gender congruency hypothesis*), numatė, jog lyties tapatumas, atitinkantis vyraujančias moteriškumo ir vyriškumo kultūrines sampratas, yra susijęs su optimaliu psichologiniu funkcionavimu (Page & Warkentin, 1938; Terman & Miles, 1936). Kiek vėliau pasiūlyta alternatyvi hipotezė, pagal kurią optimalus psichologinis funkcionavimas sietas su androginiškumu, t. y., tiek moteriškais, tiek vyriškais laikomų elementų derme konkretaus individo savęs suvokime (Bem, 1974, 1981; Bem & Lewis, 1975; Bem, Martyna, & Watson, 1976; Gilbert, 1981; Spence, Helmreich, & Stapp, 1975). Netrukus androginiškumo hipotezė buvo patikslinta teigiant, jog būtent su dominuojančia vyriškumo kultūrine samprata siejamų elementų (instumentinių bruožų) perėmimas palankus tiek vyrų, tiek moterų psichologiniam funkcionavimui (Whitley, 1983). Ankstyvosios metaanalizės (Bassoff & Glass, 1982; Whitley, 1983, 1985; Taylor & Hall, 1982) patvirtino androginiškumo ir vyriškų bruožų hipotezes, o biologinės-socialinės lyties dermės hipotezei empirinio pagrindo nerado. Vis dėlto net ir paskelbus metaanalizių išvadas tyrimai šioje srityje tęsėsi, o gauti rezultatai tebebuvo prieštaringi.

Vienas iš svarbiausių aspektų, galinčių paaiškinti prieštaringas nuomones bei nesutampančias tyrimų išvadas aptariamoje srityje, yra tyrėjų taikytų lyties tapatumo sampratų įvairovė (Lurye, Zosuls, & Ruble, 2008). Lyties tapatumo samprata per tyrimų dešimtmečius smarkiai kito. Ankstvieji tyrimai buvo pagrįsti vienmate lyties tapatumo samprata, pagal kurią moteriškas ir vyriškas tapatumas buvo apibrėžiami kaip priešinguose tos pačios dimensijos poliuose esantys konstruktai. Vėliau pereita prie dvimatės lyties tapatumo sampratos, pagal kurią moteriškas ir vyriškas tapatumas laikyti atskiromis nepriklausomomis dimensijomis, kurių skirtingas išreikštumas nusako individualius lyties tapatumo skirtumus. Nors pastaroji lyties tapatumo samprata buvo platesnė nei vienmatė, abi ankstyvosios sampratos buvo kritikuojamos dėl to, kad lyties tapatumą susiaurino iki sau priskiriamų moteriškomis arba vyriškomis laikomų savybių, pastarąsias dar siauriau suprantant kaip ekspresinius ir instrumentinius bruožus. Be to, ankstyvieji instrumentai, skirti lyties tapatumui įvertinti, apėmė tik socialiai

pageidaujamus ekspresinius ir instrumentinius bruožus, dėl ko tyrimų išvados buvo dar labiau iškraipomos (Aubé & Koestner, 1992; Holahan & Spence, 1980; Spence et al., 1979).

Remiantis gausia kritika ankstyvosioms lyties tapatumo sampratoms maždaug 1980-ųjų pradžioje psichologinėje literatūroje atsirado kokybiškai naujas požiūris į lyties tapatumą bei kitus su lytimi susijusius konstruktus. Pagrindinis naujojo požiūrio akcentas buvo lyties tapatumo bei kitų su lytimi susijusių konstruktų daugiamatiškumo pripažinimas (Egan & Perry, 2001; Spence, 1984, 1993; Spence & Buckner, 1995). Pastebėta, kad individo su lytimi susijęs savęs suvokimas gali skirtis priklausomai nuo aptariamos srities (veikla, interesai, asmens savybės, santykiai, vertybės, stilius) ir kad lyties tapatumas gali susidėti iš daugelio elementų, kurie gali būti ir nesusiję tarpusavyje bei turėti skirtingus ryšius su kitais konstruktais (Spence, 1984, 1993; Spence & Buckner, 1995). Pripažinta, kad nėra vienos integruojančios dimensijos, kuri pilnai nusakytų asmens lyties tapatumą (Egan & Perry, 2001). Nors įvairių autorių išskiriami lyties tapatumo komponentai kiek skiriasi, bendrai šiandien sutariama, kad tai yra daugiamatis konstruktas.

Pripažinus, kad su lytimi susiję veiksniai, įskaitant lyties tapatumą, yra kompleksiški daugiamačiai konstruktai, klausimas apie lyties tapatumo sąsajas su kitais psichologinio funkcionavimo aspektais, šiuo atveju, psichologinių sunkumų bei gerovės rodikliais, taip pat turi būti performuluotas. Remiantis daugiamate perspektyva paprastos, vienakryptės hipotezės apie aptariamus ryšius iškelti neįmanoma, klausimas turi būti nagrinėjamas keletu lygmenų. Visų pirma, svarbu nustatyti, kokios yra lyties tapatumo dimensijos. Antra, svarbu išsiaiškinti, kokios yra kiekvienos lyties tapatumo dimensijos sąsajos su konkrečiais psichologinių sunkumų ir gerovės rodikliais. Trečia, reikia įvertinti, kokį santykinį svorį kiekviena lyties tapatumo dimensija turi numatant tam tikrų psichologinių sunkumų ir gerovės rodiklių įverčius, bei kaip lyties tapatumo dimensijos sąveikauja tarpusavyje.

Visiems šiems klausimams vis dar reikalingi moksliniai tyrimai, nes daugiamatė lyties tapatumo samprata, o tuo pačiu ir ja besiremiantys tyrimai, atsirado, palyginti, neseniai. Pirmieji šios krypties tyrimai rodo, kad sąsajų tarp lyties tapatumo dimensijų bei psichologinių sunkumų ir gerovės rodiklių esama, tačiau tyrimų rezultatai nėra vienareikšmiški, o taikomi metodai turi tam tikrų apribojimų. Daugelis šios krypties tyrimų sąsajas tarp pavienių lyties tapatumo dimensijų ir kitų psichologinio funkcionavimo aspektų vertino neatsižvelgdami į visas konstrukto dalis, t. y., nekontroliuodami likusių lyties tapatumo dimensijų efektų. Dėl šios priežasties unikalūs ryšiai tarp atskirų lyties tapatumo dimensijų ir psichologinių sunkumų bei gerovės rodiklių nėra žinomi. Ankstesniuose tyrimuose taip pat neatsižvelgiama į glaudžiai su lyties tapatumu susijusius konstruktus, pavyzdžiui, lyties vaidmens stereotipus, kurių efektai gali trukdyti nustatyti tikruosius lyties tapatumo dimensijų ryšius su kitais psichologinio funkcionavimo aspektais (Tobin et al., 2010). Šiame darbe siekiama išvengti čia įvardintų tyrimų apribojimų.

Darbe remiamasi daugiamate lyties tapatumo samprata, kurią pirmieji suformulavo Egan ir Perry (2001), empiriškai įvertino Carver, Yunger ir Perry (2003), Yunger, Carver ir Perry (2004), Smith ir Leaper (2006), Corby, Perry ir Hodges (2007), Bos ir Sandfort

(2010), Yu ir Xie (2010), bei Jodoin ir Julien (2011). Vėliau ši samprata buvo tikslinama ir kontekstualizuojama Tobin ir kt. (2010) bei Perry ir Pauletti (2011) darbuose. Į mūsų tyrimą įtraukiamos daugiausiai literatūroje nagrinėtos ir empiriškai patvirtintos lyties tapatumo dimensijos. Prie pagrindinių lyties tapatumo dimensijų paprastai priskiriamas lyties tipiškumas, pasitenkinimas lyties vaidmeniu, jaučiamas spaudimas atitikti su lytimi susijusias socialines normas, o taip pat kai kurie kiti lyties tapatumo aspektai (visi jie plačiau aptariami 3.2 skyriuje).

Ne mažiau svarbu šiame darbe apsibrėžti psichologinių sunkumų ir gerovės sąvokas bei parinkti joms tinkamus rodiklius. Tiek psichologinių sunkumų, tiek gerovės sampratos yra labai plačios, abi apima platų įvairių psichologinių reiškinių spektrą. Paprastai tyrėjai parenka tam tikrus rodiklius ar aspektus, kuriuos matuoja konkrečiame tyrime. Tiek matuojami sunkumų ir gerovės aspektai, tiek jų skaičius atskiruose tyrimuose neretai smarkiai skiriasi priklausomai nuo to, kokiu amžiaus tarpsniu ar tyrimo klausimu domimasi. Šiame darbe psichologinių sunkumų ir gerovės rodikliai parinkti laikantis tokių principų: 1) skiriant vienodą dėmesį psichologinių sunkumų ir gerovės aspektams; 2) remiantis teoriniu pagrįstumu, t. y., įtraukiant tik tuos sunkumų ir gerovės aspektus, kurie teoriškai siejami su lyties tapatumu, pvz., egzistuoja jų etiologinis modelis, apimantis ir tam tikrus lyties tapatumo elementus; ir 3) teikiant prioritetą tiems psichologinių sunkumų ir gerovės aspektams, kurie laikomi svarbiais paauglystėje. Remiantis šiais principais į tyrimą įtraukti trys psichologinių sunkumų rodikliai (depresiškumas, vienišumas ir delinkventiškas elgesys) bei trys gerovės aspektai (savivertė, saviveiksmingumas ir subjektyvus pasitenkinimas gyvenimu).

3. Tyrimo tikslai ir mokslinis indėlis

Šiame tyrime keliami tokie tikslai: 1) nustatyti lyties tapatumo struktūrą bei įvertinti lyties tapatumo dimensijų diskriminantinį validumą viduriniojoje ir vėlyvojoje paauglystėje Lietuvos moksleivių imtyje; bei 2) įvertinti sąsajas tarp lyties tapatumo dimensijų ir konkrečių psichologinių sunkumų bei gerovės rodiklių viduriniojoje ir vėlyvojoje paauglystėje. Tyrimas prisideda prie aptariamos mokslinių tyrimų srities tuo, jog: 1) leidžia įvertinti, kiek anksčiau vaikų ir ankstyvųjų paauglių imtyse matuotos lyties tapatumo dimensijos tinkamos viduriniojoje ir vėlyvojoje paauglystėje; 2) leidžia įvertinti lyties tapatumo dimensijų stabilumą pagal lytį ir amžių; 3) leidžia įvertinti sąsajas tarp lyties tapatumo ir psichologinių sunkumų bei gerovės aspektų atsižvelgiant į lyties tapatumo dimensijų tarpusavio ryšius ir nustatant atskirų dimensijų reikšmę tiriamoms sąsajoms; bei 4) leidžia įvertinti tiriamas sąsajas atsižvelgiant į paauglių lyties vaidmens stereotipus.

4. Tyrimo hipotezės

H1: lyties tapatumo struktūra viduriniojoje ir vėlyvojoje paauglystėje nesiskiria pagal lytį ir amžių.

H2: lyties tapatumo dimensijos teigiamai koreliuoja, bet nėra tapačios, kitiems su socialine lytimi susijusiems konstruktams: sau priskiriamiems lyčiai būdingiems bruožams, paauglių lyties ideologijoms ir lyties vaidmens stereotipams.

H3: aukštesni lyties tipiškumo ir pasitenkinimo lyties vaidmeniu įverčiai susiję su žemesniais psichologinių sunkumų ir aukštesniais gerovės rodiklių įverčiais, o

aukštesni jaučiamo spaudimo, nepasitenkinimo apribojimais ir lyties vaidmens stereotipų įverčiai susiję su labiau išreikštais psichologinių sunkumų ir mažesniais gerovės rodiklių įverčiais.

H4: lytis moderuoja lyties tapatumo dimensijų ir pasirinktų psichologinio funkcionavimo aspektų sąsajas.

5. Metodologija

Tyrimo dalyviai. Tyrime dalyvavo 530 paauglių, kuriems tyrimo metu buvo 14–19 metų (M = 16.01, SD = 0.97). Tarp tyrimo dalyvių buvo 282 vaikinai (53.2%) ir 248 merginos (46.8%). Tiriamieji mokėsi devintoje-vienuoliktoje klasėse. Tyrimas buvo atliekamas Vilniaus apskrities mokylose. Vilniaus apskritis pasirinkta dėl patogumo, keletas mokyklų iš šios apskrities yra pasirašę bendradarbiavimo sutartis su Mykolo Romerio universitetu. Tiriamieji į imtį buvo renkami pagal iš anksto sudarytas kvotas, kurios apskaičiuotos remiantis Lietuvos Statistikos departamento pateiktais duomenimis (priedas A) apie moksleivių pasiskirstymą Vilniaus apskrities mokyklose pagal mokyklos tipą, gyvenvietės tipą, klasę bei lytį.

Tiriamųjų pasiskirstymas pagal klasę, kurioje mokosi, lytį bei amžių pateikiamas 1 lentelėje. Tyrime dalyvavo dviejų vidurinių mokyklų (n = 228, 43%) ir trijų gimnazijų moksleiviai (n = 302, 57%). Trys iš penkių mokyklų buvo Vilniaus miesto, o dvi – kitų Vilniaus apskrities vietovių mokyklos (viena įsikūrusi kaimo, kita miesto tipo vietovėje). Pagal etninę sudėtį šio tyrimo imtis buvo panaši į bendrą Lietuvos populiaciją – 81.5% tyrimo dalyvių laikė save lietuviais, 10% – lenkais, 3.7% – rusais, 1% – kitų etninių grupių atstovais, o likusieji savo tautybės nenurodė.

1 lentelė. *Tiriamųjų pasiskirstymas pagal klasę, lytį ir amžių*

Klasė	Devinta	Dešimta	Vienuolikta
n (%)	151 (28.5)	197 (37.2)	182 (34.3)
Lytis (*n merg./n vaik.*)	77/74	80/117	91/91
Amžius (*M* (*SD*))	14.83 (0.44)	16.06 (0.55)	16.93 (0.50)

Tyrimo eiga. Duomenys šiam tyrimui buvo renkami 2011 m. gruodžio – 2012 m. vasario mėnesiais. Mokyklos, atitinkančios numatytą mokyklos tipą bei vietovę ir turinčios bendradarbiavimo sutartį su universitetu, buvo pakviesto dalyvauti tyrime. Iš penkių pakviestų mokyklų keturių vadovai sutiko dalyvauti, o vienos mokyklos vadovė atsisakė dėl pernelyg dažnai toje mokykloje atliekamų apklausų. Vietoje atsisakiusiosios į tyrimą buvo pakviesta kita to paties tipo panašioje vietovėje veikianti mokykla. Kiekvienoje iš dalyvaujančių mokyklų apklausta po dvi devintokų, dešimtokų ir vienuoliktokų klases, kurios parinktos pagal patogumą.

Moksleiviai buvo apklausti klasėse pamokų metu. Duomenis rinko penki kvalifikuoti tyrėjai (darbo autorė, dvi mokyklos psichologės bei trys psichologijos magistratūros antrakursės). Pateiktą klausimyną moksleiviai pildė nuo 25 iki 45 minučių. Prieš tyrimą moksleiviai buvo informuoti, jog dalyvavimas apklausoje yra savanoriškas, anonimiškas ir konfidencialus, ir kad dalyvavimą tyrime jie gali nutraukti bet kuriuo metu.

Tyrime buvo taikoma pasyvaus tėvų sutikimo procedūra. Į tyrimą pakviestų moksleivių tėvai laišku buvo informuoti apie tyrimą prašant susisiekti laiške nurodytais tyrėjų kontaktais, jei nesutinka, kad jų dukra ar sūnus dalyvautų tyrime. Moksleiviai, kurių tėvai išreiškė nesutikimą (tokių moksleivių buvo 1%), tyrime nedalyvavo. Taip pat nebuvo apklausti moksleiviai, kurie tyrimo dieną neatvyko į mokyklą (tokių buvo 20% skaičiuojant nuo bendro dalyvauti tyrime pakviestų moksleivių skaičiaus).

Tyrimo instrumentai. Su lytimi susijusiems konstruktams matuoti buvo naudojami šie instrumentai: *Paauglių lyties tapatumo skalės* (*Adolescent Gender Identity Scales,* AGIS, sukurtos šiam tyrimui remiantis Egan & Perry, 2001); *Paauglių lyties vaidmens stereotipų skalė* (*Adolescent Gender Role Stereotypes,* AGRS, sukurta šiam tyrimui); *Bruožų* subskalė iš *Profesijų, veiklų ir bruožų* klausimyno trumposios versijos (*Occupations Activities Traits*, OAT, Liben & Bigler, 2002); *Paauglių moteriškumo ideologijos skalė* (*Adolescent Femininity Ideology Scale,* AFIS, Tolman & Porche, 2000; Tolman et al., 2006); ir *Paauglių vyriškumo ideologijos santykiuose skalė* (*Adolescent Masculinity Ideology in Relationships Scale,* AMIRS, Chu, Porche, & Tolman, 2005). Pirmosios dvi skalės yra pagrindiniai šio tyrimo instrumentai, o likusios trys naudojamos įvertinti lyties tapatumo dimensijų diskriminantinį validumą. Psichometrinės skalių charakteristikos pateikiamos 2 lentelėje.

2 lentelė. *Psichometrinės su lytimi susijusių konstruktų skalių charakteristikos*

Skalė	Subskalė	Teiginių skaičius	Cronbacho alpha	Test-retest *n = 17*
Paauglių lyties tapatumo skalės (AGIS, sukurta šiam tyrimui remiantis Egan & Perry, 2001)	Lyties tipiškumas	8	.86	.73
	Pasitenkinimas lyties vaidmeniu	3	.70	.54
	Nepasitenkinimas apribojimais	6	.69	.89
	Jaučiamas spaudimas	10	.90	.80
Paauglių lyties vaidmens stereotipų skalė (AGRS, sukurta šiam tyrimui)		10	.79	.81
Lyčiai būdingi bruožai (OAT trumpoji versija, Liben & Bigler, 2002)	Vyriški bruožai	10	.76	.75
	Moteriški bruožai	10	.61	.82
Paauglių moteriškumo ideologijos skalė (AFIS, Tolman & Porche, 2000; Tolman et al., 2006)	Neautentiškumas santykiuose	8	.56	.92
	Kūno sudaiktinimas	9	.79	.95
Paauglių vyriškumo ideologijos santykiuose skalė (AMIRS, Chu, Porche, & Tolman, 2005)		12	.66	.86

Pastaba. Pakartotinis matavimas (*retest*) atliktas vienoje iš tyrime dalyvavusių klasių praėjus dviems savaitėms po pagrindinio tyrimo.

Psichologiniams sunkumams matuoti buvo naudojami šie instrumentai: *Epidemiologinių tyrimų centro Depresiškumo skalė vaikams* (*Centre for Epidemiological Studies Depression Scale for Children,* CES-DC, Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986); *Vienišumo tarp bendraamžių* subskalė iš *Vienišumo ir vienatvės skalės vaikams ir paaugliams* (*Loneliness and Aloneness Scale for Children and Adolescents,* LACA, Marcoen et al., 1987); bei *Delinkventiško elgesio skalė* (*Delinquent Behaviour Scale,* adaptuota pagal Persson, Kerr, & Stattin, 2007, bei Magnusson, Dunér, & Zetterblom, 1975). Šių instrumentų konstrukto validumas buvo tikrinamas patvirtinančiosios faktorinės analizės (CFA) būdu. Analizės rezultatai parodė, jog tikrintas modelis gerai tinka duomenims: χ^2 (30, $N = 530$) = 126, $p < .001$; CFI = .96; RMSEA = .08; SRMR = .05. Tikrintas modelis su sugrupuotais latentinių faktorių indikatoriais pateikiamas B priedo paveiksle B.1.

Psichologinės gerovės aspektams matuoti buvo naudojami šie instrumentai: *Rozenbergo bendrosios savivertės skalė* (*Rosenberg Self-Esteem Scale,* RSES, Rosenberg, 1965); *Bendrojo saviveiksmingumo skalė* (*Generalized Self-Efficacy Scale,* GSES, Schwarzer & Jerusalem, 1995), bei *Daugiamatė moksleivių pasitenkinimo gyvenimu skalė* (*Multidimensional Students' Life Satisfaction Scale,* MSLSS, Huebner, 2001). Šių instrumentų konstrukto validumas buvo tikrinamas patvirtinančiosios faktorinės analizės (CFA) būdu. Analizės rezultatai parodė, jog tikrintas modelis gerai tinka duomenims: χ^2 (30, $N = 530$) = 126, $p < .001$; CFI = .96; RMSEA = .08; SRMR = .05. Tikrintas modelis su sugrupuotais latentinių faktorių indikatoriais pateikiamas B priedo paveiksle B.2. Psichometrinės skalių charakteritikos pateikiamos 3 lentelėje.

3 lentelė. *Psichometrinės psichologinių sunkumų bei gerovės aspektų skalių charakteristikos*

Skalė	Teiginių skaičius	Cronbacho alpha
Epidemiologinių tyrimų centro Depresiškumo skalė vaikams (CES-DC, Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986)	20	.85
Vienišumas tarp bendraamžių (LACA, Marcoen et al., 1987)	12	.91
Delinkventiškas elgesys (pagal Persson, Kerr, & Stattin, 2007, bei Magnusson, Dunér, & Zetterblom, 1975)	12	.79
Rozenbergo bendrosios savivertės skalė (RSES, Rosenberg, 1965)	10	.82
Bendrojo saviveiksmingumo skalė (GSES, Schwarzer & Jerusalem, 1995)	10	.90
Daugiamatė moksleivių pasitenkinimo gyvenimu skalė (MSLSS, Huebner, 2001)	40	.70

Duomenų analizė. Tyrimo duomenų analizė atlikta struktūrinių lygčių modeliavimo metodu (SEM) naudojant Mplus programos 5.2 versiją (Muthén & Muthén, 1998–2007). Modelių parametrams įvertinti naudotas didžiausio tikėtinumo (angl. *maximum likelihood*, ML) metodas. Aprašomoji statistinė analizė bei daugiamatė

dispersinė analizė (MANOVA) atlikta naudojant SPSS programos 17 versiją. Tyrimo duomenų analizę sudarė trys pagrindiniai etapai. Pirmame etape siekiant nustatyti lyties tapatumo bei lyties vaidmens stereotipų struktūrą atlikta tiriančioji faktorinė analizė (EFA) su GEOMIN pasukimu. Lyties ir amžiaus efektai tiriamų konstruktų struktūrai buvo įvertinti naudojant kelių grupių (angl. *multi-group*) patvirtinančiąją faktorinę analizę (CFA). Diskriminantiniam lyties tapatumo skalių validumui įvertinti naudotas Pearsono koreliacijos koeficientas. Antrajame duomenų analizės etape paskaičiuotos pagrindinių tyrimo kintamųjų aprašomosios statistinės charakteristikos bei naudojant daugiamatę dispersinę analizę (MANOVA) įvertinti lyties ir amžiaus efektai lyties tapatumo bei lyties vaidmens stereotipų skirstiniams. Paskutiniame etape siekiant patikrinti tyrimo hipotezes apie lyties tapatumo bei psichologinių sunkumų ir gerovės aspektų sąsajas sudaryti bei įvertinti atitinkami struktūriniai modeliai. Netiesioginių kelių analizei sudarytuose modeliuose naudota *model indirect* komanda su savirankos (angl. *bootstrap*) metodu nustatytais pasikliautiniais intervalais.

Vertinant sudarytų struktūrinių lygčių modelių tinkamumą duomenims remtasi šiais kriterijais: chi kvadrato testu, palyginimo indeksu (angl. *comparative fit index,* CFI), aproksimacijos liekanos kvadrato šaknies paklaida (angl. *root mean square of approximation,* RMSEA) bei kvadratine šaknimi iš standartizuotos vidutinės liekanos (angl. *standardized root mean square residual*, SRMR). Pasirinktų tinkamumo indeksų vertės, rodančios, kad modelis gerai tinka duomenims, yra šios: CFI arti .95, RMSEA arti .06 bei SRMR arti .07 (Hu and Bentler, 1998). Pasirinktų tinkamumo indeksų vertės, rodančios, kad modelis pakankamai tinka duomenims, yra šios: CFI virš .90, RMSEA žemiau .08 bei SRMR žemiau .10 (Kline, 2005).

6. Pagrindiniai tyrimo rezultatai

Lyties tapatumo ir lyties vaidmens stereotipų struktūra. Su teiginiais, skirtais įvertinti įvairius paauglių lyties tapatumo aspektus, atlikta tiriančioji faktorinė analizė. Jos rezultatai parodė, kad keturių faktorių modelis gerai tinka duomenims: χ^2 (249, $N = 530$) = 761, $p < .001$; CFI = .90; RMSEA = .06; SRMR = .04. Trys iš keturių faktorių atspindėjo jau anksčiau plačiai literatūroje analizuotas lyties tapatumo dimensijas, o ketvirtas buvo susijęs su, palyginti, nauju lyties tapatumo aspektu. Pirmasis faktorius (8 teiginiai) atspindėjo *lyties tipiškumo* konstruktą, t. y., laipsnį, kuriuo paauglys jaučiasi tipiškas savo lyties grupės atstovas pagal keletą sričių: charakterį, laisvalaikį, nuomones, išvaizdą, elgesį, tikslus bei prioritetus. Antrasis faktorius (10 teiginių) atspindėjo *jaučiamo spaudimo* atitikti socialines lyties normas išreikštumą, t. y., kiek neigiamas reakcijas iš bendraamžių, tėvų, mokytojų bei savęs numato paauglys, jei jis pažeistų socialines lyties normas. Trečiasis faktorius (3 teiginiai) atspindėjo *pasitenkinimo lyties vaidmeniu* konstruktą, t. y., laipsnį, kuriuo paauglys patenkintas savo lyties vaidmeniu, su juo susijusia veikla ir galimybėmis. Paskutinis faktorius (6 teiginiai) atspindėjo *nepasitenkinimą apribojimais*, susijusiais su socialine lytimi, t. y., neigiamą su lytimi susijusių socialinių suvaržymų bei diskriminacijos vertinimą. Kaip minėta, pastarasis faktorius yra, palyginti, naujas, dar neaptartas paskelbtuose tyrimuose, tačiau įtrauktas į ankstesnių tyrėjų dar nepublikuotą medžiagą (Perry, 2009, asmeninė komunikacija).

Lyties tapatumo dimensijas matuojančių faktorių tarpusavio ryšiai mūsų tyrime buvo panašūs kaip ir ankstesniuose tyrimuose. Lyties tipiškumas, pasitenkinimas lyties vaidmeniu bei jaučiamas spaudimas buvo teigiamai susiję tarpusavyje. Nepasitenkinimas apribojimais buvo silpnai neigiamai susijęs su pasitenkinimu lyties vaidmeniu bei jaučiamu normatyviniu spaudimu.

Tiriančioji faktorinė analizė buvo atlikta ir su teiginiais, skirtais matuoti paauglių lyties vaidmens stereotipus. Analizės rezultatai parodė, kad vieno faktoriaus modelis gerai tiko duomenims: χ^2 (35, N = 530) = 117, p < .001; CFI = .92; RMSEA = .07; SRMR = .04. Taigi šiame tyrime buvo patvirtinta vienmatė paauglių lyties vaidmens stereotipų struktūra. Siekiant paprastumo vėlesniuose analizuojamuose modeliuose lyties tapatumo bei stereotipų latentinių faktorių indikatoriai buvo sugrupuoti, o šio sugrupuoto modelio tinkamumas patikrintas patvirtinančiosios faktorinės analizės pagalba. Analizės rezultatai parodė gerą modelio tinkamumą duomenims: χ^2 (94, N = 530) = 237, p < .001; CFI = .95; RMSEA = .05; SRMR = .04. Pilnas lyties tapatumo bei stereotipų matavimo modelis pateikiamas C priedo lentelėje C.3.

Siekinat patikrinti pirmąją tyrimo hipotezę (H1), numatančią, kad lyties tapatumo struktūra išlieka stabili skirtingose lyties ir amžiaus grupėse, remtasi Meredith (1993) pateiktais faktorių stabilumo kriterijais (tikrintas stiprus faktorių stabilumas, angl. *strong factorial invariance*) bei Holmbeck (1997) aprašyta moderavimo analizės procedūra. Analizės rezultatai parodė, jog lyties tapatumo struktūra nekito pagal lytį ir amžių, nes modelių tinkamumo indeksų pokyčiai neviršijo rekomenduojamų ribų didelių imčių atvejais (CFI pokytis ≥ .010, kartu su RMSEA pokyčiu ≥ .015 arba SRMR pokyčiu ≥ .030 (Chen, 2007)). Taigi tyrimo duomenimis, lyties tapatumo, o taip pat ir lyties vaidmens stereotipų struktūra stabili pagal lytį ir amžių (apytikslis amžiaus atitikmuo šiame tyrime – klasės).

Tikrinant antrąją tyrimo hipotezę (H2) dėl lyties tapatumo dimensijas matuojančių skalių diskriminantinio validumo atlikta koreliacinė analizė, apimanti visus tyrime matuojamus su lytimi susijusiusius konstruktus. Diskriminantinis validumas buvo apibrėžtas kaip teigiamos, bet neaukštos lyties tapatumo dimensijų koreliacijos su lyčiai būdingais bruožais, paauglių lyčių ideologijomis bei lyties vaidmens stereotipais. Kaip ir tikėtasi, lyties tapatumo dimensijos silpnai teigiamai buvo susijusios su lyčiai būdingais bruožais. Statistiškai reikšmingi silpni bei vidutinio stiprumo teigiami ryšiai rasti ir su paauglių lyties ideologijas matuojančiomis skalėmis bei lyties vaidmens stereotipais. Taigi galima teigti, jog lyties tapatumo dimensijas matuojančios skalės pasižymi diskriminantiniu validumu kitų su lytimi susijusių konstruktų (lyčiai būdingų bruožų, paauglių lyties ideologijų bei lyties vaidmens stereotipų) atžvilgiu .

Lyties tapatumo ir psichologinių sunkumų bei gerovės aspektų sąsajos. Siekiant patikrinti trečiąją tyrimo hipotezę (H3) ir nustatyti unikalius lyties tapatumo dimensijų ryšius su matuojamais psichologinių sunkumų bei gerovės rodikliais buvo sudaryti du struktūrinių lygčių modeliai. Viename modelyje lyties tapatumo dimensijų ir lyties vaidmens stereotipų latentiniai kintamieji prognozavo psichologinių sunkumų latentinius kintamuosius (depresiškumą, vienišumą ir delinkventinį elgesį, žr. 1 pav.), o kitame modelyje tie patys lyties tapatumo ir stereotipų kintamieji prognozavo gerovės

latentinius kintamuosius (savivertę, saviveiksmingumą ir subjektyvų pasitenkinimą gyvenimu, žr. 2 pav.). Modeliai sudaryti atskirai sunkumų ir gerovės kintamiesiems siekiant modelių paprastumo.

SEM analizės rezultatai parodė, kad abu sudaryti modeliai gerai tinka duomenims. Prognozuojant psichologinių sunkumų rodiklius modelio tinkamumo indeksai buvo šie: χ^2(296, N = 530) = 471, p < .001; CFI = .93; RMSEA = .05; SRMR = .05. Kaip matyti 1 paveiksle, didesnis pasitenkinimas lyties vaidmeniu susijęs su žemesniais depresiškumo bei vienišumo įverčiais. Tuo metu stipresnis nepasitenkinimas apribojimais susijęs su aukštesniais depresiškumo bei vienišumo įverčiais. Be to, stipresnis lyties vaidmens stereotipiškumas susijęs su labiau išreikštu delinkventišku elgesiu.

Prognozuojant gerovės aspektų rodiklius modelio tinkamumo indeksai buvo šie: χ^2(296, N = 524) = 669, p < .001; CFI = .93; RMSEA = .05; SRMR = .05. Kaip matyti 2 paveiksle, didesnis pasitenkinimas lyties vaidmeniu susijęs su aukštesne saviverte, o stipresnis nepasitenkinimas apribojimais susijęs su žemesne saviverte. Pasitenkinimas lyties vaidmeniu teigiamai, o lyties tipiškumas silpnai neigiamai susiję su saviveiksmingumu. Subjektyvų pasitenkinimą gyvenimu leido nl,ko0umatyti net keturi su lytimi susiję kintamieji: aukštesnis lyties tipiškumas bei stipresnis pasitenkinimas lyties vaidmeniu susiję su aukštesniu pasitenkinimu gyvenimu, o didesnis nepasitenkinimas suvaržymais bei labiau išreikštas stereotipiškumas susiję su žemesniu pasitenkinimu gyvenimu. Statistiškai reikšmingi ryšiai 1 ir 2 paveiksluose pavaizduoti juodomis rodyklėmis, nereikšmingi – pilkomis.
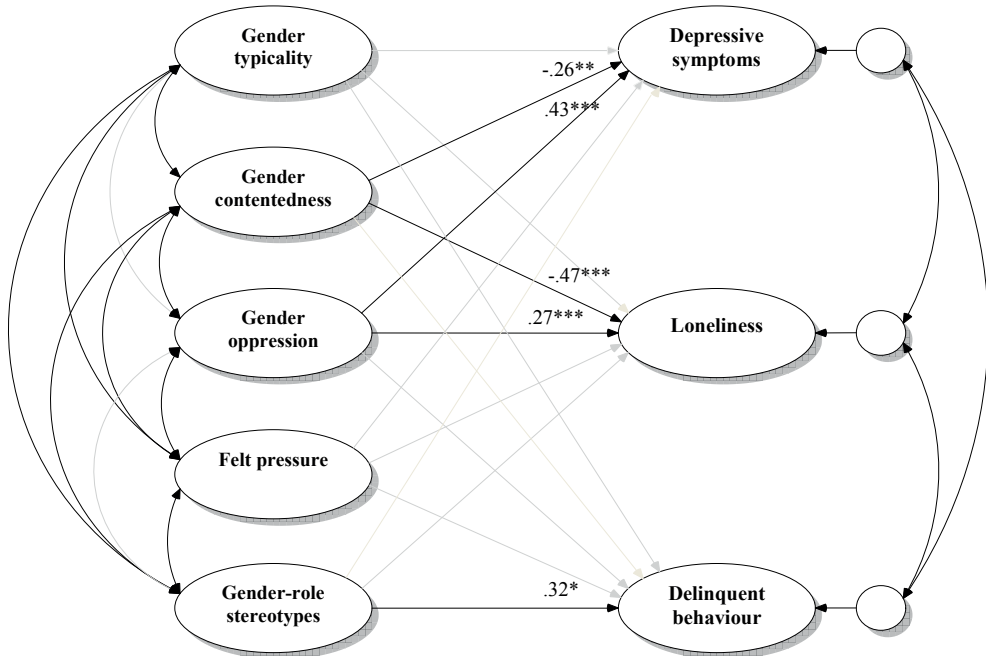
1 pav. Modelis 1 – lyties tapatumo ir psichologinių sunkumų rodiklių sąsajų modelis (kai lyties vaidmens stereotipai kontroliuojami), N = 530. *Pastaba.* *p < .05, ** p < .01, *** p < .001.
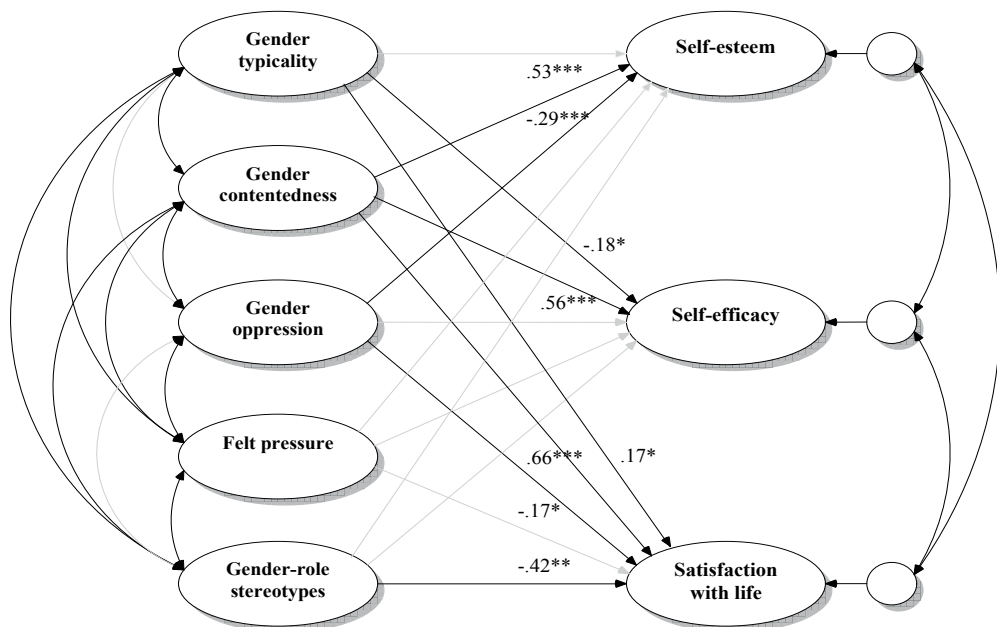
2 pav. Modelis 2 – lyties tapatumo ir gerovės aspektų rodiklių sąsajų modelis
(kai lyties vaidmens stereotipai kontroliuojami), *N* = 524. *Pastaba.* *p < .05, ** *p* < .01, *** *p* < .001.

Be tiesioginių analizuojamų modelių kelių, pavaizduotų 1 ir 2 pav., taip pat buvo įvertinti ir kai kurie netiesioginiai lyties tapatumo dimensijų ir psichologinių sunkumų bei gerovės rodiklių ryšiai. Tikrinta, ar pasitenkinimas lyties vaidmeniu, nepasitenkinimas apribojimais bei lyties vaidmens stereotipai medijuoja lyties tipiškumo ir jaučiamo spaudimo efektus prognozuojant psichologinių sunkumų bei gerovės rodiklius. Šie netiesioginiai ryšiai vertinimui parinkti atsižvelgiant į koreliacinės analizės bei 1 ir 2 modelių SEM analizės rezultatus. Atsižvelgiant į imties dydį ir analizuojamų modelių sudėtingumą pasirinktas griežtesnis statistinio reikšmingumo lygmuo (α = .01). Nustatyta, kad lyties tipiškumas turėjo keturis statistiškai reikšmingus netiesioginius ryšius su sunkumų ir gerovės rodikliais, visus šiuos ryšius medijavo pasitenkinimas lyties vaidmeniu. Aukštesnis lyties tipiškumas, numatydamas aukštesnį pasitenkinimą lyties vaidmeniu, netiesiogiai leido numatyti ir žemesnį vienišumą (β = -.21; *p* < .01; 99% CI = -.37 to -.05); aukštesnę savivertę (β = .25; *p* < .01; 99% CI = .06 to .44); didesnį saviveiksmingumą (β = .23; *p* < .01; 99% CI = .06 to .40); bei stipresnį subjektyvų pasitenkinimą gyvenimu (β = .37; *p* < .01; 99% CI = .16 to .57).

Apibendrinant galima teigti, jog SEM analizė patvirtino daugelį trečiojoje hipotezėje numatytų ryšių tarp lyties tapatumo dimensijų ir psichologinių sunkumų bei gerovės aspektų. Aukštesnis pasitenkinimas lyties vaidmeniu (tiesiogiai) bei aukštesnis lyties tipiškumas (daugiausiai netiesiogiai) leido numatyti žemesnius psichologinių sunkumų bei aukštesnius gerovės rodiklių įverčius, o labiau jaučiamas nepasitenkinimas apribojimais bei labiau išreikštas lyties vaidmenų stereotipiškumas leido tiesiogiai numatyti aukštesnius psichologinių sunkumų bei žemesnius gerovės rodiklių įverčius. Didesnis jaučiamas spaudimas atitikti lyties normas leido numatyti

žemesnius savivertės bei subjektyvaus pasitenkinimo gyvenimu įverčius, bet tik tuomet, kai nebuvo atsižvelgiama į galimai persidengiančius lyties vaidmens stereotipų efektus. Rezultatai taip pat parodė, jog sudaryti modeliai leido paaiškinti ženklią matuotų psichologinių sunkumų ir gerovės rodiklių (išskyrus delinkventiško elgesio) sklaidos dalį: 33% depresiškumo, vienišumo bei savivertės sklaidos, 19% saviveiksmingumo ir 44% subjektyvaus pasitenkinimo gyvenimu sklaidos.

Tikrinant ketvirtąją hipotezę (H4) apie nustatytų lyties tapatumo sąsajų su sunkumų ir gerovės rodikliais skirtumus pagal lytį remtasi Holmbeck (1997) aprašyta moderavimo analizės procedūra. Šios analizės rezultatai nepatvirtino ketvirtosios hipotezės – nustatyta, kad lyties tapatumo dimensijų ryšiai su psichologinių sunkumų ir gerovės rodikliais pagal lytį nesiskiria.

7. Rezultatų aptarimas

Šio tyrimo rezultatai papildo lyties tapatumo mokslinius tyrinėjimus trimis aspektais. *Visų pirma*, tai buvo vienas iš pirmųjų bandymų taikyti daugiamatį požiūrį į paauglių lyties tapatumą ir įvertinti, kiek tyrimuose su vaikais išskirtos lyties tapatumo dimensijos gali būti aktualios aptariant lyties tapatumą viduriniojoje bei vėlyvojoje paauglystėje. Šio tyrimo rezultatai rodo, jog trys dažniausiai ankstesniuose tyrimuose nagrinėtos lyties tapatumo dimensijos – lyties tipiškumas, pasitenkinimas lyties vaidmeniu bei jaučiamas normatyvinis spaudimas – prasmingai aprašo lyties tapatumą viduriniojoje bei vėlyvojoje paauglystėje. Be to, remiantis atliktu tyrimu galima teigti, jog šiame raidos tarpsnyje gali būti aktualus dar vienas lyties tapatumo aspektas – nepasitenkinimas apribojimais, susijusiais su socialine lytimi, kitaip tariant, neigiamas su lytimi susijusių socialinių suvaržymų bei diskriminacijos vertinimas. Tai gana naujas konstruktas lyties tapatumą nagrinėjančioje literatūroje, todėl jam patvirtinti reikalingi tolesni tyrimai. Nepaisant to, šiame tyrime išskirta nauja lyties tapatumo dimensija leidžia manyti, jog į lyties tapatumo tyrinėjimus verta įtraukti ne vien suvokiamą artimumą savo lyties grupei, bet ir subjektyviai patiriamus struktūrinius lyties aspektus, tokius kaip diskriminacija lyties pagrindu. Lyčių nelygybę, galios ir statuso skirtumus pagal lytį vaikai pradeda pastebėti gana anksti. Šie pastebėjimai gali būti ypač aktualūs paauglystėje, kai sparti kognityvinių funkcijų raida įgalina paauglius kritiškai pažvelgti į socialinius apribojimus, stereotipus. Nenuostabu, jog tokie struktūriniai lyties elementai, kaip nelygybė ir discriminacija lyties pagrindu, gali atsispindėti paauglių savęs suvokime kaip viena lyties tapatumo dimensijų.

Antra, šis tyrimas papildo esamas žinias apie lyties tapatumo bei kitų psichologinio funkcionavimo aspektų sąsajas, atskleisdamas unikalius lyties tapatumo dimensijų ryšius su matuotais psichologinių sunkumų bei gerovės aspektų rodikliais. Priešingai nei ankstesniuose tyrimuose, šiame darbe aptariamos sąsajos vertintos atsižvelgiant į lyties tapatumo dimensijų tarpusavio ryšius ir sąveikas, o taip pat į lyties vaidmens stereotipų vaidmenį. Tai leido tiksliau įvertinti santykinį kiekvienos lyties tapatumo dimensijos svorį numatant svarbius paauglių psichologinio funkcionavimo aspektus.

Tyrimo rezultatai parodė, jog lyties tapatumo dimensijos bei lyties vaidmens stereotipai leidžia paaiškinti ženklią matuotų psichologinių sunkumų (išskyrus delinkventiško elgesio) ir gerovės rodiklių sklaidos dalį (nuo 19% iki 44%). Daugelis šiame darbe

prognozuotų ryšių buvo empiriškai patvirtinti. Aukštesnis pasitenkinimas lyties vaidmeniu (tiesiogiai) bei aukštesnis lyties tipiškumas (daugiausiai netiesiogiai) leido numatyti žemesnius psichologinių sunkumų bei aukštesnius gerovės rodiklių įverčius, o labiau jaučiamas nepasitenkinimas apribojimais bei labiau išreikštas lyties vaidmenų stereotipiškumas leido tiesiogiai numatyti aukštesnius psichologinių sunkumų bei žemesnius gerovės rodiklių įverčius.

Remiantis šio tyrimo rezultatais galima teigti, jog iš visų lyties tapatumo aspektų būtent pasitenkinimo lyties vaidmeniu dimensija yra reikšmingiausia numatant svarbius psichologinio funkcionavimo aspektus viduriniojoje bei vėlyvojoje paauglystėje. Lyginant su ankstesnių tyrimų duomenimis galima daryti prielaidą, kad šiame raidos tarpsnyje santykinis lyties tapatumo dimensijų svoris ir vaidmuo gali būti pakitęs lyginant su vaikystės bei ankstyvosios paauglystės periodais, kuomet svarbiausiu psichologinių sunkumų bei gerovės aspektų prediktoriumi laikoma lyties tipiškumo dimensija.

Trečia, šio tyrimo rezultatai bent iš dalies užpildo aptariamame tyrimų lauke pastebimas moderavimo analizės bei lyties tapatumo struktūros palyginimų skirtingose grupėse spragas. Tyrime atlikta lyties ir amžiaus efektų analizė atskleidė, jog išskirtos lyties tapatumo dimensijos, o taip pat jų ryšiai su psichologinių sunkumų ir gerovės rodikliais nesiskiria pagal lytį. Išskirta lyties tapatumo struktūra taip pat vienodai gerai tinka 15, 16 bei 17 metų paaugliams.

8. Išvados

1. Išskirtos keturios lyties tapatumo dimensijos, būdingos viduriniosios ir vėlyvosios paauglystės raidos tarpsnyje: lyties tipiškumas, pasitenkinimas lyties vaidmeniu, nepasitenkinimas apribojimais ir jaučiamas spaudimas.

2. Lyties tapatumo struktūra viduriniojoje ir vėlyvojoje paauglystėje nesiskiria pagal lytį ir amžių.

3. Lyties tapatumo dimensijos teigiamai koreliuoja, bet nėra tapačios, kitiems su socialine lytimi susijusiems konstruktams: sau priskiriamiems lyčiai tipiškiems bruožams, paauglių lyties ideologijoms ir lyties vaidmens stereotipams.

4. Išskirtos lyties tapatumo dimensijos leidžia numatyti psichologinių sunkumų (depresiškumo, vienišumo ir delinkventiško elgesio) bei gerovės aspektų (savivertės, saviveiksmingumo ir subjektyvaus pasitenkinimo gyvenimu) įverčius paauglystėje:

   4.1. Aukštesnis pasitenkinimas lyties vaidmeniu (tiesiogiai) bei aukštesnis lyties tipiškumas (daugiausiai netiesiogiai) leidžia numatyti žemesnius psichologinių sunkumų bei aukštesnius gerovės rodiklių įverčius.

   4.2. Stipresnis nepasitenkinimas apribojimais bei labiau išreikštas lyties vaidmenų stereotipiškumas leidžia tiesiogiai numatyti aukštesnius psichologinių sunkumų bei žemesnius gerovės rodiklių įverčius.

   4.3. Didesnis jaučiamas spaudimas atitikti lyties normas leidžia numatyti žemesnius savivertės bei subjektyvaus pasitenkinimo gyvenimu įverčius, bet tik tuomet, kai neatsižvelgiama į galimai persidengiančius lyties vaidmens stereotipų efektus.

4.4. Aukštesnis lyties tipiškumas leidžia numatyti žemesnius saviveiksmingumo įverčius.

4.5. Stipriausią ryšį su psichologinių sunkumų bei gerovės rodikliais turi pasitenkinimo lyties vaidmeniu dimensija. Ši dimensija taip pat tarpininkauja numatant psichologinius sunkumus ir gerovę pagal kitas lyties tapatumo dimensijas (lyties tipiškumą).

5. Bendrai lyties tapatumas ir lyties vaidmens stereotipai paaiškina nuo 19 iki 44 procentų matuotų psichologinių sunkumų (išskyrus delinkventiško elgesio) ir gerovės rodiklių sklaidos.

6. Nustatyti ryšiai tarp lyties tapatumo ir kitų psichologinio funkcionavimo aspektų nesiskiria pagal lytį.

Tyrimo rezultatų aprobavimas

Daktaro disertacija buvo pristatyta ir aprobuota Mykolo Romerio universiteto Psichologijos instituto posėdyje, vykusiame 2013 m. sausio 10 d. Tyrimo rezultatai taip pat buvo aprobuoti mokslinėse konferencijose bei moksliniuose leidiniuose.

Mokslinių publikacijų sąrašas

Moksliniai straipsniai iš disertacijos temos:

1. **Erentaitė, R.,** Malinauskienė, O. (2012). Moteriškumo ideologijos sąsajos su paauglių merginų depresiškumu, savęs vertinimu bei subjektyviu pasitenkinimu gyvenimu. *Tarptautinis psichologijos žurnalas: Biopsichosocialinis požiūris*, *11*, 49-74. doi: 10.7220/1941-7233.11.3

2. **Erentaitė, R.**, Žukauskienė, R. (2010). Gender identity and internalizing symptoms among Lithuanian adolescents. R. Žukauskienė (Ed.) *Proceedings of the XIV European Conference on Developmental Psychology* (pp. 524–529). Bologna: Medimond. ISBN 978-88-7587-584-8

3. Malinauskienė O., Vosylis R., **Erentaitė R.**, Žukauskienė R. (2010). Vyresniųjų paauglių lyties tapatumo ir tėvų auklėjimo stiliaus ryšiai. *Socialinis darbas, 9*(2), 135–143. ISSN 1648-4789

4. **Erentaitė, R.** (2009). Lyties tapatumo dimensijos ir psichologinis prisitaikymas vėlyvojoje paauglystėje. In I. Salialionė, A. Kairys (Eds.) *Žmogus XXI amžiuje: kas naujo? VI Jaunųjų mokslininkų psichologų konferencija*. (pp. 82–89). Vilnius: Vilniaus universiteto leidykla. ISBN 978-9955-33-457-6

Kitos susijusios publikacijos, parengtos doktorantūros studijų metu:

Referuojamos Thomson-Reuters (ISI) Web of Science duomenų bazėse

1. Berne, S. Frisén, A., Schultze-Krumbholz, A., Scheithauer, H., Naruskov, K., Luik, P., Katzer, C., **Erentaite, R.,** Zukauskiene, R. (2013). Cyberbullying assessment instruments: A systematic review. *Aggression and Violent Behavior*, *18(2)*, 320–334. doi: 10.1016/j.avb.2012.11.022

2. **Erentaitė, R.,** Žukauskienė, R., Beyers, W., Pilkauskaitė-Valickienė, R. (2012). Is news media related to civic engagement? The effects of interest in and discussions about the news media on current and future civic engagement of adolescents. *Journal of Adolescence*, *35(3)*, 587–597. doi: 10.1016/j.adolescence.2011.12.008

3. **Erentaitė, R.,** Bergman, L.R., Žukauskienė, R. (2012). Cross-contextual stability of bullying victimization: A person-oriented analysis of cyber and traditional bullying experiences among adolescents. *Scandinavian Journal of Psychology*, *53(2)*, 181–190. doi: 10.1111/j.1467-9450.2011.00935.x

4. **Erentaitė, R.** (2011). 'We are simply more beautiful': counterstories of Lithuanian migrant women in London. In E. H. Oleksy, J. Hearn, & D. Golanska (Eds.) *The limits of gendered citizenship. Contexts and complexities* (pp. 212–225). London: Routlegde.

Referuojamos kitose tarptautinėse mokslinėse duomenų bazėse

1. **Erentaitė, R.,** Pilinkaitė-Sotirovič, V. (2012). Lyties aspektas migracijos procesuose: trečiųjų šalių piliečių situacijos Lietuvoje analizė. Etniškumo studijos, *12(1–2)*, 178–203. ISSN 1822-1041.

2. Žukauskienė, R., Malinauskienė, O., **Erentaitė, R.** (2011). Tėvų auklėjimo stiliaus ir emocinio intelekto sąsajos su vyresniųjų paauglių saviveiksmingumu bei saviverte pagal lytį. *Psichologija*, *44*, 22–41. ISSN 1392-0359.

Mokslinių konferencijų pranešimai disertacijos tema

1. **Erentaitė, R.** (2011, gegužė). Vyresnių paauglių merginų moteriškumo ideologijos ir emocinių sunkumų sąsajos. Žodinis pranešimas. Lietuvos psichologų kongresas: Psichologija pokyčių laikotarpiu, Kaunas.

2. **Erentaitė, R.** & Žukauskienė, R. (2010, liepa). Gender identity and peer victimization: different interactions for adolescent boys and girls. Stendinis pristatymas. 21st Biennial Congress of the International Society for the Study of Behavioural Development, Lusaka.

3. **Erentaitė, R.** & Žukauskienė, R. (2010, balandis). Gender-related pressures and well-being among late adolescents: The role of gender contentedness and felt normative pressure. Stendinis pristatymas. 4th Gender Development Research Conference, San Francisco, California.

4. **Erentaitė, R.,** Ustinavičiūtė, L., & Žukauskienė, R. (2009, rugpjūtis). Victims and bullies in cyber space: Does gender identity play a role? Stendinis pristatymas. 14th European Conference on Developmental Psychology, post conference workshop Cyberbullying: Definitions and Measurement Issues, Vilnius.

5. **Erentaitė, R.** & Žukauskienė, R. (2009, rugpjūtis). Multidimensional gender identity: Implications for psychosocial adjustment in late adolescence. Stendinis pristatymas. 14th European Conference on Developmental Psychology, Vilnius.

6. **Erentaitė, R.** (2009, gegužė). Gender identity dimensions and psychosocial adjustment in late adolescence. Stendinis pristatymas. UPSIDE conference "The Nuts and Bolts of Longitudinal Research", Uppsala.

7. **Erentaitė R.** (2009, gegužė). Lyties tapatumo dimensijos ir psichologinis prisitaikymas vėlyvojoje paauglystėje. Žodinis pristatymas. 6-oji Jaunųjų psichologijos tyrėjų konferencija, Vilnius.

8. **Erentaitė, R.** (2008, rugsėjis). Gender compatibility and adjustment from a longitudinal perspective: data analysis plan. Žodinis pranešimas. Meeting of the Baltic-Nordic Network of Graduate Psychology Students, Vilnius.

CURRICULUM VITAE

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Išsilavinimas

2008–2013	Psichologijos doktorantūros studijos Mykolo Romerio universiteto Psichologijos institutas
2004–2005	Lyčių studijų magistras Vidurio Europos universiteto Lyčių studijų katedra
2000–2003	Psichologijos magistras Mykolo Romerio universiteto Psichologijos katedra
1996–2000	Psichologijos bakalauras Vilniaus universiteto Psichologijos katedra

Dėstymo patirtis

Lektorė
2007–2013	Mykolo Romerio universiteto Psichologijos institutas (Kursai: Akademinis raštingumas, Psichologinių mokslinių tyrimų metodologija, Asocialus elgesys, Psichologijos įvadas)

Disertacijoje nagrinėjama lyties tapatumo struktūra bei atskirų lyties tapatumo dimensijų sąsajos su psichologinių sunkumų bei gerovės aspektų rodikliais viduriniojoje ir vėlyvojoje paauglystėje. Atliktas tyrimas papildo esamas žinias apie paauglių lyties tapatumą keliais aspektais. Pirma, tyrimo rezultatai leidžia įvertinti, kiek anksčiau vaikų ir ankstyvųjų paauglių imtyse identifikuotos lyties tapatumo dimensijos tinkamos viduriniojoje ir vėlyvojoje paauglystėje. Antra, tyrimas ne tik atskleidžia lyties tapatumo struktūrą paauglystėje, bet ir pagrindžia lyties tapatumo dimensijų stabilumą lyties ir amžiaus atžvilgiu. Trečia, atlikta analizė leidžia įvertinti sąsajas tarp lyties tapatumo ir psichologinių sunkumų bei gerovės aspektų atsižvelgiant į lyties tapatumo dimensijų tarpusavio ryšius bei sąsajas su paauglių lyties vaidmens stereotipais. Tyrimo rezultatai taip pat pagrindžia nustatytų ryšių tinkamumą paauglių vaikinų ir merginų pogrupiuose.

Based on the lack of attention to the problem of gender identity and its links to psychological difficulties and well-being in adolescence, this study was designed to address the issue by applying a contemporary multidimensional approach to gender identity. The study aims to evaluate the links that particular aspects of gender identity have with important indicators of psychological difficulties and well-being in adolescence. The results of the study contribute to the field of research in several ways. Firstly, the study empirically extends the multidimensional understanding of gender identity to the period of middle- to late-adolescence. Secondly, it allows identifying the direction and strength of unique links between the dimensions of gender identity and important indicators of adolescent psychological difficulties and well-being. Thirdly, the results allow evaluating the extent to which a given set of gender-identity dimensions may contribute to explaining particular difficulties and aspects of well-being in adolescence. The results of the study also provide support for gender invariance of identified links.