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DOCTORAL THESIS EXTENDED SUMMARY

Psychosocial Factors Relevant for the Quality of Couple Relationship and of Parent-Child Relationship in the Context of Sexuality Education

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Key Words: sexual development, sexual health, sexuality education, sexuality competence, parents, couple relationship, children, young people, parent-child relationship, sexuality-related communication, sexuality education parental program

Chapter I. THEORETICAL BACKGROUND – Theoretical and empirical considerations

1.1. Introduction and general considerations regarding the research topic

The general well-being of children and young people and their healthy physical as well as psychological development are central concerns for parents, health professionals and also educators. Throughout their sexual development and through sexuality education (SE), children (0-9 years old) and young people (10-24 years old) acquire sexual competencies (knowledge, capabilities, behaviors) which play an important role in protecting them from sexual risk behaviors and contribute to their sexual and reproductive health as part of a healthy and fulfilled life (OMS, 2010).

Literature indicates that quality and stability of marital relationship are positively correlated to the general well-being of individuals in a couple as well as for their family members and are negatively correlated to development and adjustment problems for children and young people and with emotional and behavioral problems for individuals and couples (Proulx, Helms & Buehler, 2007; Gerard, Krishnakumar & Buehler, 2006). Relationship dissatisfaction is associated with a significant number of marriages ending in divorce and is considered a vulnerability factor for psychological distress and for family conflict (frequently resulting in victims) (Stith, Green, Smith & Ward, 2008).

In this research project (doctoral thesis) the term "family" refers to one or two adults (usually, although possibly more in some cases) who are raising one or more children, irrespective of the adults' biological relation to the children, of their sexual orientation or their gender identity. Also, when used, the term "parent" signifies any adult person who is primarily responsible for raising a child, a caregiver.

There are numerous psychological and social factors (e.g., genetic factors; socio-economic status of family; family atmosphere; parenting style; attachment style; communication style; family dynamics and management; level of parental monitoring and connectedness; sex/gender of parent (and child); parental attitudes, beliefs, values and knowledge; certain personality factors/traits) characterizing families which, in their role as primary education agents for children, contribute to their sexual socialization and sexual literacy (Shtarkshall, Santelli & Hirsch, 2007; Walker, 2004; Bersamin et al., 2008, Stone, Ingham & Gibbins, 2012; Córdova, Heinze, Mistry, Salas-Wright, & Zimmerman, 2016). Of these associations, some enjoy more empirical support (e.g. socio-economic status, communication, gender differences in parental involvement) while others less.

The general objective of this research project was that of adding to the scientific knowledge regarding the modalities in which certain factors and processes (associated to the quality of couple relationship and of parentchild relationship) and their relations characterizing adults in Romania having a parent status are contributing to the sexual development and health of the children being raised by these adults. The specific knowledge acquired as a result of the several stages of this project were used to develop a sexuality education program for parents of young people in Romania aged 10 to 14 years.

1.2. Sexuality and human development

This research project constitutes a study of human sexuality from an integrative interdisciplinary psychological and educational perspective. The theoretical approach in which this research is grounded is the **biopsychosocial approach** (Engel, 1977) **on sexuality** (Lehmiller, 2014) which conceives of human sexuality as a result of a variety of factors and processes of a biological and evolutionary nature (genetics, prenatal environment, hormones, puberty, menopause), of a social and cultural nature (culture, religion, education, socioeconomic status, relationships) and of a psychological nature (personality, emotions, attitudes, memory, learning) (Lamellar, 2014, p. 22). Given the multitude of (biopsychosocial) factors and of processes and interactions which contribute to the development of an individual, of her competence and implicitly, of her sexual-health-related behavior, it was considered that the **Social-Cognitiv-Ecological Model**, previously proposed and used by Dubow, Huesmann & Boxer (2009) (for research purposes other than the study of sexual development and health) offers theoretical framework that is a particularly pertinent to this research. This model integrates the *Social-Cognitive Theory* of personality, (Bandura, 1986) and the *Ecological Systems Theory*, (Bronfenbrenner, 1979, 1994; Bronfenbrenner & Morris, 1998) which is in turn compatible with an evolutionary perspective on parenting behavior proposed by the *Parental Investment Theory* (Trivers, 1972) and on other characteristics of development and behavior associated in this perspective to individual-level factors.

This approach contributes to a more nuanced understanding of factors and processes related to the sexual and reproductive development and health of young people, to the prevention of risk behavior and of related negative outcomes and also to the optimization of the general well-being of young people, this being the main purpose of the present research project.

1.3. Sexuality and couple relationship

Literature reveals a lack of consensus regarding what constitutes the quality of marital or couple relationship although it was the topic of interest for a large number of studies which produced a diverse repertoire of empirical data (Johnson, 1995). Throughout this research project the concept of quality of couple relationship was attributed a more inclusive meaning, consisting of a global evaluation of the couple relationship on several dimensions such as: positive and negative aspects of couple life (e.g., support, tension), attitudes and perceptions of behavior and action patterns, expressed through couple satisfaction, attitudes toward the partner and the level of negative and hostile behavior (Robles, Schlachter, Trombello & McGinn, 2013, p.1-2).

There exists a considerable amount of empirical data available in the literature on relationship satisfaction and sexual satisfaction and their relation (Sprecher & Cate, 2004). Data support the hypothesis that higher levels of sexual satisfaction are being expressed by individuals in married couples compared to unmarried ones. There is no statistically significant difference between levels of sexual satisfaction for individuals in heterosexual couples and for those in same sex couples. In general, data points toward the fact that women tend to express higher levels of sexual satisfaction in married relationships or if they perceive their current relationships as lifelong while the levels of men's sexual satisfaction seem to be less sensitive to the type of intimate relationship that they are involved in. Levels of sexual satisfaction seem to decrease with ageing and duration of relationship (for review see Sprecher & Cate, 2004).

Data suggest that there is a positive association between daily evaluations of the quality of couple relationship made by mothers and fathers and their daily evaluations of the parent-child relationship. These results were obtained when controlling for levels of relationship satisfaction, relationship conflict and type of parenting (Kouros, Papp, Goeke-Morey & Cummings, 2014).

1.4. Parent-child relationship: a multidimensional approach

Family and parent-child relationships were the topic of numerous studies from different fields and perspectives: psychological, educational, sociological, anthropological or other. There is almost a unanimous view regarding the fact that families and family environment, parents, parenting styles and parenting practices are decisively influencing the developmental outcomes of every individual.

A large number of studies investigated communication between parents and children (for review see Segrin & Flora, 2011, Widman et al., 2016). Some of these studies mention communication processes and dimensions in the context of sexuality education. The majority of interventions with the purpose of improving sexual competence or preventing sexual risk behavior in children and young people have parent-child communication and ways of improving it as a central component. These studies point out the fact that, in general, it is mothers who communicate more on this topic with their children (Angera, Brookins-Fisher & Inungu, 2008, Widman et al., 2016) but regarding parents of both genders/sexes, there are barriers or influences (e.g., attitudes, expectancies, beliefs, lack of knowledge, family processes and dynamics, individual family members characteristics/traits) on the levels of communication and its effects/outcomes (Jerman & Constantine, 2010; Bangpan & Operario, 2012).

The family microsystem is characterized by certain psychological factors for which parent-child communication is a central process, it being in turn influenced by a multitude of intra- and inter-systemic interactions (in Ecological Systems Theory terms). This study aimed to find predictors (at individual level and family dynamics level) for the quality and quantity of parent-child communication on sexual topics.

1.5. Sexual health. Family role and contribution to the sexual health and education of young people

Statistical data available from the majority of the world's regions indicate the fact that lack of knowledge about sexuality and sexual risk behavior are a common occurrence among young people and they constitute vulnerability factors for negative outcomes associated to sexual health (Hirst, 2008; UNESCO, 2009) and the effects of this lack entail significant costs at personal as well as societal levels both (Kirby, 2011).

Sexual education (sexuality education, sexual and reproductive health education) is associated in literature with people's *sexual* (and reproductive) *health* (Bourke et al., 2014). A number of factors characterizing families and family environment and context contribute to the initial sexual literacy and sexual socialization of children and afterwards to the acquirement of attitudes, beliefs and values influencing their sexual behavior (Shtarkshall, Santelli & Hirsch, 2007; Parkes et al., 2013). Studies propose that parental connectedness and support and parental control and monitoring influence the level of sexual risk behavior in young people (De Graaf et al., 2011; Vidourek et al., 2009; Miller, 2002). Parent-child communication is a factor frequently mentioned by studies as having a significant role in protecting young people from unwanted/undesirable outcomes of sexual behavior (DiIorio, Pluhar & Belcher, 2003; Angera, Brookins-Fisher & Inungu, 2008) although empirical support is still contradictory in this respect (Downing et al., 2011). Above were mentioned other factors which might also affect the level of competence of young people in the sexual domain.

Of the barriers perceived by parents as affecting their sexual educator performance literature indicates parental inaccurate and incomplete knowledge, parental beliefs about childhood innocence, parental beliefs about appropriate age, time and content for discussions on sexuality topics, parental personal discomfort to communicate on this topic, low parental sexual educator self-efficacy, lack of resources and support from others, concern with how others perceive and evaluate (judge) them (Wooden & Anderson, 2012; Stone, Ingham & Gibbins, 2013; Widman et al., 2016).

1.6. Sexuality education programs. Psychological and educational outcomes.

A wide-spread classification of (school-based) sexuality education programs proposes three main approaches for these programs (Kirby, 2002; Kirby, Laris & Rolleri, 2007; Ponzetti, 2016): (1) *abstinence-only-until-marriage* programs; (2) *abstinence-plus* programs and (3) *comprehensive* (with the *holistic* version) programs. As indicated by the results of multiple studies (Kirby, 2002; APA; 2005; Kirby, Laris & Rolleri, 2007; Poobalan et al., 2009, Ponzetti, 2016), the only type of programs which proved to be effective at protecting adolescents from unwanted pregnancies and sexually transmitted infections as a consequence of first intercourse but also later in their sexual life were the comprehensive ones. Also, studies revealed that abstinence-only-until-marriage programs were associated with undesired unprotected-sex outcomes, increasing the risk for sexually transmitted infections and unplanned pregnancies in adolescents (Ponzetti, 2016).

International literature analyses point to the fact that formal (school-based) sexuality education programs are sometimes implemented insufficiently or too late (age-wise) and frequently with moderate effect and as such lose their protective/preventive quality (Goldman, 2011), this serving as an additional argument for the importance of children and young people receiving appropriate sexuality education the bases (attitudes, beliefs, values and behaviors) of which should be laid from early childhood and with the significant contribution of families (Colagrossi et al., 2014).

Studies (Walker, 2004; Bersamin et al., 2008; Vidourek, Bernard & King, 2009; Goldman, 2008) indicate that although parents usually undertake the task of providing sexuality education to their children they might also need support consisting of motivation, information, strategies and resources to help them get better results. Despite an abundance and considerable variety of programs and interventions, the *effectiveness* of family- or parent- centered programs designed to prevent or reduce sexual risk behavior and associated negative sexual health outcomes for young people is rather modest, as empirical data show (Downing et al., 2011; Wight & Fullerton, 2013).

The approach of this doctoral project is innovative in its integrative use of different theoretical models and perspectives on the research topic given the fact that the majority of previous studies on sexual education programs development based their approaches on principles of social learning and derivatives of this theory (Haberland & Rogow, 2015). This new approach could increase the effectiveness of this type of interventions by proposing and testing new explanatory models of their outcomes and as a consequence, new intervention methods and strategies. Also for the purpose of maximizing the effectiveness of the parental sexuality education program it proposes, in its development and implementation, the present project followed principles of adult education reflected by the concept of *heutagogy* (Hase & Kenyon, 2000). Another relevant aspect in terms of increasing the effectiveness of the program was the attention dedicated to the pedagogical aspects of adults learning in groups given that the proposed program is a group (8 to 10 parents) one.

Parental education and parental competence is a secondary objective of the parental sexuality education program proposed by this research. It is instrumental in reaching the desired primary outcomes of the program which are at the level of sexual health and competence of children and young people but at the same time it has benefits for the general well-being of parents as well.

Chapter II. RESEARCH OBJECTIVES

2.1. General objectives of the research project

This research project aimed to contribute with a scientific answer to the question regarding the role that parents and some of their psychosocial characteristics play in attaining sexual health in their children.

The general objective of this research is that of investigating some of the factors with potential impact on the level of sexuality education and sexual health of children and young people in Romania, factors which might significantly influence the processes by which children in a family are acquiring sexual competence and the level of sexual risk bevor that they engage in. Some of these factors are attitudes, beliefs and expectancies of parents and potential parents and some factors associated to their parental practices.

Among the working hypotheses of this project is the hypothesis that individual factors as well as relational (couple) factors characterizing adults on the one hand and factors associated to the parent-child relationship and

to certain interactions and family processes on the other hand could both influence the level of sexual health of children and young people.

To reach its objective, the present research project went through several stages: a comprehensive analysis of literature on the quality of couple relationship and of parent-child relationship followed by a series of six (literature or empirical) studies each with their specific objectives subsumed by the general objective of the project.

The original research contribution of this project consists of these six stages/studies which are methodologically quasi-independent and each having results with informative and practical value even when taken out of the context of this project.

2.2. Specific research objectives of the project

Study 1 had the following objectives: 1) to investigate the relation between psychological factors associated to the perception of couple relationship quality in adults (namely, relationship satisfaction, sexual satisfaction and sexual communication anxiety); 2) exploring possible predictors (i.e., sociodemographic characteristics, perfectionism and sexual perfectionism) for the variables in objective 1; 3) exploring the relation between multidimensional perfectionism and multidimensional sexual perfectionism on the study sample.

Study 2 had the objective of carrying out a systematic analysis of the studies evaluating educational (parenting) programs centered on families and parents and their contribution to the sexual health and sexual-risk-behavior prevention in children and young people (with the purpose of identifying ways of improving parents' and families' contribution to attaining sexual health in young people with the help of parental sexuality education programs).

Study 3's objective was to gather empirical data (from an online medium) and perform a thematic analysis on them with the purpose of advancing the scientific knowledge on parental characteristics (of Romanian speaking parents) associated to their attitudes and beliefs regarding children's sexual development and health, their parenting practices in this domain and their (self-identified) specific needs related to their sexual educator roles.

Study 4 had the objective of adapting and evaluating the psychometric qualities of the Romanian language version of an instrument used in the international literature for assessing parents' beliefs, attitudes, expectancies and level of parenting behaviors about communicating on sexuality topics with their children and about sexuality education. There is a lack of such theory-based and empirically validated instruments in Romanian or otherwise and having access to one allows for more reliable and generalizable research results. This measure was subsequently used in this research project.

Study 5's objective was to explore the ways in which factors associated to the levels of parents' self-reported couple relationship quality (such as sexual communication anxiety and sexual perfectionism) relate to their perception of factors associated to certain parenting dimensions (such as level of self-efficacy and level of outcome expectancy regarding communication with children on sexual topics and sexual education, and level of sexual-topics-communication behavior and beliefs about sexuality education).

Study 6 had the objective of developing a parental sexuality education program dedicated to improving the level of parent-child communication on sexuality topics and sexuality education that parents of young people (aged 10 to 14) in Romania are engaging in. The program structure and content was pre-tested in a pilot study.

Chapter III. ORIGINAL RESEARCH

Study 1 –Satisfaction and Communication in Couples of Parents and Potential Parents – Psychological Predictors and Implications for Sexuality Education of Children

3.1.1. Introduction

Alongside sexual development and the development of sexual competencies in children and young people a multitude of processes are taking place, influenced by a variety of factors characterizing families and family members and the dynamics of these factors. Literature points out some of these factors: genetic factors, socioeconomic status, family management style, family atmosphere, parenting style, attachment and communication styles, parent's gender/sex, parental attitudes, beliefs and behaviours (Walker, 2004; Bersanding et al., 2008).

The present study proposes a first step in the investigation of the relation between relationship satisfaction and sexual satisfaction, as indicators of adults' (parents') perception of couple relationship quality and of the possible relevance of couple relationship quality and of its associated factors for the level of communication on sexual topics and of sexuality education that parents engage in. The study aimed to explore factors of a sexual nature (e.g., sexual perfectionism and sexual communication anxiety) and non-sexual factors (e.g., general perfectionism) and their relations with sexual satisfaction and relationship satisfaction with the intention of addressing these factors (if the case) later in a parental sexuality education program.

There exists a significant amount of literature on the topic of relationship (marital, couple) satisfaction and its associations with social and psychological factors (e.g., Sprecher & Cate, 2004; Rusu & Mureşan, 2014). In comparison to the relatively high number of studies on sexual satisfaction and relationship satisfaction there is a smaller number of studies investigating the associations of sexual satisfaction with other psychological factors. Data indicates that people with high levels of sexual satisfaction tend to engage in a greater variety of sexual behaviors (agreed upon by both partners) and to communicate more on sexual topics (Ashdown, Hackathorn & Clark, 2011).

Concerning the relation between relationship satisfaction and sexual satisfaction, a considerable number of the studies on the subject offer support for the hypothesis that the two constructs are strongly correlated in individuals who are in a couple relationship but the diversity of results and associations established by these studies between the two factors are not sufficient to explain the complex nature of their relation, a bicausal one being possible (Sprecher & Cate, 2004).

The association between relationship satisfaction and sexual satisfaction seems stronger in couples with both partners having higher levels of anxious (romantic) attachment (Butzer & Campbell, 2008) or in middle- or older-aged couples (Heiman et al., 2011). Women report higher levels of sexual satisfaction while men seem happier in relationship. Frequency of sexual intercourse and number of lifetime partners are predictors for sexual satisfaction but not for relationship satisfaction (Heiman et al., 2011).

Relationship satisfaction and sexual satisfaction vary together, partially due to the quality of intimate communication. There is a clear need for more complex theoretical models of these two types of satisfaction, models that integrate the existing results and propose a solid methodological and theoretical basis to help with future research (Byers, 2005).

This study aimed at finding predictors for these factors and to explore mediation models for relationship and sexual satisfaction. Based on previous results about the role that aspects of sexual communication with one's partner play in the relation between the two types of satisfaction (Montesi et al, 2011; Litzinger & Gordon, 2005; Byers & Demmons, 1999) the hypothesis that sexual communication anxiety is one of these aspects was proposed here.

There is only a small number of studies on sexual communication anxiety (apprehension) (i.e. Davis et al., 2006; Babin, 2012). It is inversely correlated to sexual satisfaction and relationship satisfaction (Davis et al., 2006). Babin (2012) proposed a model where sexual communication anxiety and sexual self-esteem were predictors for verbal and non-verbal communication of pleasure during sex which in turn predicted sexual satisfaction (Babin, 2012).

The present study also proposed an investigation of the ways in which attitudinal/expectational factors such as perfectionism and sexual perfectionism are related to satisfaction and communication in a couple and an exploration of their predictor potential for them. To that end, a theoretical model (Hewitt & Felt, 1991; Hewitt, Flett & Mikail, 1995) describing perfectionism as a multidimensional trait was used, with its personal and interpersonal dimensions strongly correlated but with different characteristics and having both adaptive as well as maladaptive potential (Hewitt & Flett, 1991; Hewitt, Flett & Mikail, 1995).

The associations of these three dimensions of perfectionism with factors indicating adjustment or maladjustment are various and only socially prescribed perfectionism proved to be an exclusively maladaptive dimension of perfectionism, being directly associated with anxiety and inversely associated with satisfaction with life (Stieber et al., 2013).

The two interpersonal/social aspects of perfectionism (other-oriented and socially prescribed) are particularly strongly related both conceptually and empirically with negative behaviours and interpersonal problems, with couples' problems (Haring, Hewitt & Felt, 2003), with strong beliefs about communication in couples, with lower relationship satisfaction and with a propensity for destructive relationship behaviours (Flett, Hewitt, Shapiro & Rayman, 2001), with communication apprehension (Shimotsu & Mottet, 2009) and with sexual satisfaction in couples (Habke, Hewitt & Flett, 1999).

People have perfectionistic beliefs, standards and expectations for sexual performance and relationships, i.e. perfectionism related to the sexual aspects of a relationship. Only a few studies propose a multidimensional approach to this concept (Snell & Rigdon, 2001; Snell, 2001, Stoeber et al., 20130. A systematic exploration (Stoeber et al., 2013) of multidimensional perfectionism in the sexual domain and of its relevance for various aspects of sexuality revealed the existence of significant correlations between dimensions of sexual perfectionism and various aspects of sexuality such as sexual self-esteem, sexual satisfaction, sexual self-efficacy, sexual anxiety, depression and self-blame for sexual problems (Stoeber et al., 2013).

3.1.2. Study hypotheses

This study proposed the following hypotheses: (1) levels of perfectionism positively correlate with levels of sexual perfectionism; (2) levels of relationship satisfaction positively correlate with levels of sexual satisfaction; (3) perfectionism and sexual perfectionism are predictors for sexual communication anxiety, relationship satisfaction and sexual satisfaction; (4) exploration of sexual communication anxiety mediating the relation between relationship satisfaction and sexual satisfaction (or other alternative paths); (5) based on previous results (Sprecher & Cate, 2004; Heiman et al., 2011) were expected gender differences with respect to sexual communication anxiety and sexual satisfaction.

These variables, especially sexual communication anxiety, were related in the following stages of this project to the investigation of parents' involvement in the informal sexual education of their children.

3.1.3. Method

Research design: was non-experimental predictive and correlational (with an exploratory component), with five variables: (1) multidimensional perfectionism (MP), (2) sexual perfectionism (SP), (3) relationship satisfaction (RS), (4) sexual satisfaction (SS) and (5) sexual communication anxiety (SCA).

Participants: A convenient sample of 128 adults participated to the study. The participants were aged 19 to 45 (M = 26.51 years, SD = 5.98), with 77.3% of them females and 22.7% males. The only selection criterion was that participants had experienced being in a relationship for at least three months. At the time of this research 24.2% of the participants were married, 53.9% were not married but in a relationship while 21.9% of them were single. The mean duration of the present relationship for those participants involved in one was 5.41 years (SD = 5.06). The mean duration of the longest relationship the participants were ever involved in was 5.48 years (SD = 4.60, minimum duration = 0.35 years). The mean number of romantic/sexual partners of the participants prior to the study was 4.73.

Study procedure respected the general standards of research ethics: informed consent, anonymity of participation, confidentiality of responses, processing (statistical analysis) of individual data as part of the data sample for research purposes.

Instruments: 1) the *Multidimensional Perfectionism Scale* (MPS, Hewitt, Flett, Turnbull-Donovan & Mikail, 1991) is a self-report measure composed of 45 Likert-type items assessing perfectionism on three dimensions: self-oriented, other-oriented and socially prescribed perfectionism; 2) the *Multidimensional Sexual Perfectionism Questionnaire* (MSPQ, Snell & Risdon, 2001, Snell, 2001) is a 31-item (Likert-type) self-report measure evaluating sexual perfectionism on five dimensions; 3) the *Dyadic Adjustment Scale* (DAS, Spanier, 1976) is a measure used for assessing the quality of an intimate/couple relationship as perceived by the respondent with the help of 32 items on various Likert scales; 4) the *Index of Sexual Satisfaction* (ISS, Hudson, 1998) is a 25-item (on a 7-point Likert scale) self-report measure that assesses the level of sexual satisfaction (or reversed, sexual dissatisfaction); 5) the *Sexual Communication Apprehension* Items (SCA, Babin, 2012) are 26 Likert-type items developed with the purpose of evaluating the level of sexual communication anxiety of the respondents; 6) sociodemographic questionnaire developed for the purpose of this study.

The measures used in this study were previously used in the international literature and their psychometric properties were described as adequate or good.

Data analyses: The statistical analyses of the data were performed with the Statistical Package for the Social Sciences 17.0 program. The specific quantitative statistical-mathematical methods used were: (1) correlation analyses; (2) simple linear regression; (3) multiple linear regression, (4) t-tests.

3.1.4. Results

Hypothesis 1: Perfectionism positively correlates with sexual perfectionism

Data analysis revealed that global scores for multidimensional perfectionism correlated positively to global scores for sexual perfectionism (r = .451, p < .01) (see Table 3.1.1.). When analysed in depth, subscales scores on both measures (MPS and MSPQ) correlated positively with the exception of other-oriented perfectionism with partner's self-oriented sexual perfectionism (r = .096, p = .283) and of other-oriented perfectionism with partner-directed sexual perfectionism (r = .143, p = .108) (see Table 3.1.1.).

Hypothesis 2: Sexual satisfaction correlates positively with relationship satisfaction

Levels of relationship satisfaction significantly positively correlate with levels of sexual satisfaction. The Pearson correlation coefficients obtained for the ISS global scores and DAS global scores were significant (r = .575, p < .01) (see Table 3.1.1.) and also between ISS global scores and the scores on each of DAS's subscales: CONS (r = .467, p < .01); SD (r = .505, p < .01); COEZ (r = .369, p < .01) and EA (r = .475, p < .01) (see Table 3.1.1).

The Pearson correlation coefficients between perfectionism scores and sexual communication anxiety scores (r = .050, p = .579) together with the coefficients for sexual perfectionism scores and sexual communication

anxiety scores (r = .053, p = .556) were not statistically significant (see Table 3.1.1.) thus neither perfectionism nor sexual perfectionism being predictors for sexual communication anxiety.

Significant correlations were found between scores on dimensions of perfectionism or sexual perfectionism and of sexual communication anxiety, as follows: MPS-PS and SCA-SS (r = .182, p = .039); MPS-PS and SCA-DN (r = .227, p = .010); MSPQ-OSP and SCA-G (r = .197, p = .026); MSPQ-OSP and SCA total (r = .176, p = .046); MSPQ-DSP and SCA-DN (r = .178, p = .044); MSPQ-DP and SCA-SS (r = .193, p = .029) (see Table 3.1.1.). they might prove relevant for further specific analyses or for interpretation that exceeds the purpose of this research.

Neither perfectionism nor sexual perfectionism correlated significantly with either relationship or sexual satisfaction. Pearson correlation coefficients between MPS global scores and DAS global scores (r = -.011, p = .906), between MPS global scores and ISS global scores (r = .029, p = .742), between MSPQ global scores and DAS global scores (r = .006, p = .945), between MSPQ global scores and ISS global scores (r = .127, p = .152) were not statistically significant (see Table 3.1.1.).

Hypothesis 3: Perfectionism and sexual perfectionism were predictors for sexual communication anxiety, relationship satisfaction and sexual satisfaction

Given the fact that for a predictor-criterion relation to be possible the assumption of a significant correlation between the two variables should be met, there was no point in performing simple linear regression analyses on the scores on these variables, neither of the types of perfectionism being a predictor for the other three variables of the study on this sample.

Still, significant positive Pearson correlation coefficients were calculated between ISS global scores and MPS-S scores (r = .175, p = .048), between ISS global scores and MSPQ-OSP scores (r = .303, p = .001) and between ISS global scores and MSPQ-OS (r = .193, p = .029). Also, DAS-EA scores significantly positively correlate with MSPQ-OSP scores (r = .219, p = .013) (see Table 3.1.1.).

Results indicate that sexual communication anxiety is significantly negatively correlated to relationship satisfaction (r = -.293, p = .001) and to sexual satisfaction (r = -.475, p = .000) (see Table 3.1.1.).

Hypothesis 4: Sexual communication anxiety mediates the relation between relationship satisfaction and sexual satisfaction

Significant correlations found between sexual communication anxiety, relationship satisfaction and sexual satisfaction allowed for simple linear regression analyses that revealed that relationship satisfaction was a good predictor for sexual satisfaction (t = 7.884, p = .000) and for sexual communication anxiety (t = -3.438, p = .001); that sexual communication anxiety was a good predictor for sexual satisfaction (t = 6.055, p = .000) and for relationship satisfaction (t = -3.438, p = .001); that sexual communication (t = -3.438, p = .001); that sexual satisfaction was a good predictor for sexual communication anxiety (t = -3.438, p = .001); that sexual satisfaction (t = -3.438, p = .000) and for relationship satisfaction (t = -3.438, p = .001); that sexual satisfaction was a good predictor for sexual communication anxiety (t = -6.005, p = .000) and for relationship satisfaction (t = -3.438, p = .000). Each simple linear regression equation was significant at a level of significance of p < .01 (2-tailed) with values F > 10.

These results were followed by multiple linear regression analyses testing the mediation hypothesis. The data sample verified all the assumptions of a multiple regression analysis (Field, 2013).

Tests were run for two models with the criterion being either sexual satisfaction or relationship satisfaction. Significant multiple regression equations were obtained for both tested models (see Table 3.1.2. and Table 3.1.3.). For the model where sexual satisfaction was the criterion the equation was F (2,125) = 47.740, p < .000, cu R^2 = .433 (see Table 3.1.2.). For the model with relationship satisfaction as criterion the regression equation was F (2,125) = 30.904, p < .000, cu R^2 = .331 (see Table 3.1.3.).

The multiple prediction model for sexual satisfaction revealed that both predictors, sexual communication anxiety and relationship satisfaction, contributed independently significantly to explaining the variability of the criterion (see Table 3.1.2.) and as such no mediation effect was observed, both having a direct influence on the criterion. For the multiple regression model with the relationship satisfaction criterion (see Table 3.1.3.) only the influence of sexual satisfaction remained significant (p = .000) when both predictors were taken into account, thus sexual communication anxiety loses its significance as a predictor, its influence on the criterion being indirect and mediated by sexual satisfaction. To confirm the significance of the indirect effect of this second mediation model a Sobel test was performed and its results pointed out that the path model SCA \rightarrow SS \rightarrow RS (z = -4.502, α = .000007) was statistically significant.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 DAS total	-					•							·							
2 DAS-CONS	.884**																			
3 DAS-SD	.856**	.584**																		
4 DAS-COEZ	.598**	.387**	.405**																	
5 DAS-EA	.703**	.598**	.500**	.370**																
6 ISS total	.575**	.467**	.505**	.369**	.475**															
7 MPS total	011	.051	060	057	.016	.029														
8 MPS-S	.117	.182*	.013	.012	.173	.175*	.850**													
9 MPS-C	083	058	048	121	095	020	.764**	.462**												
10 MPS-PS	095	042	125	051	086	122	.814**	.521**	.479**											
11 MSPQ total	006	.018	073	.016	.111	.127	.451**	.422**	.220*	.432**										
12 MSPQ-OS	.033	.048	015	.016	.102	.193*	.424**	.395**	.235**	.382**	.871**									
13 MSPQ-PS	.010	.035	028	001	.044	.018	.407**	.359**	.219*	.398**	.766**	.631**								
14 MSPQ-OSP	.128	.128	.042	.107	.219*	.303**	.313**	.360**	.096	.269**	.701**	.491**	.365**							
15 MSPQ-DSP	081	040	151	031	.074	031	.365**	.286**	.181 *	.416**	.841**	.638**	.637**	.496**						
16 MSPQ-DP	132	118	146	042	030	028	.270**	.257**	.143	.244**	.754**	.645**	.465**	.332**	.547**					
17 SCA total	293**	210*	296**	209*	184*	475**	.050	056	.041	.157	.053	.033	.133	176*	.135	.121				
18 SCA-G	281**	208*	274**	204*	182*	461**	.014	087	.026	.119	.028	.012	.120	197*	.125	.090	.979**			
19 SCA-SS	214*	127	225*	200*	138	377**	.102	.019	.060	.182*	.102	.114	.134	105	.095	.193*	.836**	.724**		
20 SCA-DN	321**	237**	363**	141	173	447**	.117	.007	.068	.227**	.068	007	.123	096	.178 *	.100	.839**	.763**	.695**	

Table 3.1.1. Pearson correlation coefficients between study variable and their dimensions

** significance level p < .01 (2-tailed)

* significance level p < .05 (2-tailed)

Note: Subscales of used measures: DAS: CONS = Dyadic Consensus; SD = Dyadic Satisfaction; COEZ = Dyadic Cohesion; EA = Affective Expression

MPS: S = Self-oriented perfectionism; C = Other-oriented perfectionism; PS = Socially-prescribed perfectionism

MSPQ: OS = Self-oriented sexual perfectionism; PS = Socially-prescribed sexual perfectionism; OSP = Partner's self-oriented sexual perfectionism; DSP = Partnerdirected sexual perfectionism from one's partner; DP = Partner-directed sexual perfectionism

SCA: G = General sexual communication anxiety; SS = Safer sex communication anxiety; DN = Negative disclosure anxiety

							ence interval r B		Model			
						Lower limit	Upper limit	R	\mathbb{R}^2	F	p _F	
Predictor	В	SE	β	t	р							-
SCA	317	.067	335	-4.759	.000	449	185					
RS	.665	.098	.477	6.767	.000	.471	.860	.658	.433	47.740	.000	

Table 3.1.2. Multiple	regression	coefficients for	or SCA and	RS pred	lictors and SS criteric	n

Table 3.1.3. Multiple regression coefficients for SCA and SS predictors and RS	criterion
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						95% confidence interval Model for B					
Predictor	В	SE	β	t	р	Lower limit	Upper limit	R	R ²	F	$p_{\rm F}$
SCA	017	.056	026	310	.757	129	.094		-		
SS	.403	.060	.563	6.767	.000	.285	.521	.575	.331	30.904	.000

B = regression coefficient/slope; SE = standard error; β = standardized coefficient; t = coefficient significance test statistic

p = level of probability significance; R = correlation coefficient; R² = determination coefficient; F = global significance of predictor

Hypothesis 5: Gender and marital status difference exist for sexual communication anxiety and sexual satisfaction

Analyses revealed gender differences between participants' scores for sexual communication anxiety, with a mean value of M = 69.17 (SD = 28.815) for men and a mean value of M = 55.58 (SD = 21.899) for women. There were also marital status differences observed for the sexual communication anxiety scores, with a mean value of M = 64.45 (SD = 26.034) for married participants and a mean value of M= 55.01 (SD = 22.349) for the unmarried ones. There were also found differences based on participants' gender and marital status regarding their sexual satisfaction levels, with married ones having lower levels (M = 141.97, SD = 19.443) compared to the unmarried (M = 152.16, SD = 20.674) and men reporting in general lower levels of sexual satisfaction (M =135.66, SD = 24.476) compared to women (M = 148.95, SD = 21.610).

						t	-test for equali	ty of means		
		Levene equality of							95% confidence interval of difference	
		F	p _F	t	df	р	Mean difference	SE of difference	Lower	Upper
C / d	ISS	1.832	.178	-2.826	126	.005	-13.294	4.704	-22.604	-3.985
Sex/gender	SCA	2.976	.087	2.727	126	.007	13.597	4.986	3.730	23.463
Marital	ISS	.043	.837	-2.321	98	.022	-10.192	4.390	-18.904	-1.479
status	SCA	.165	.686	1.854	98	.067	9.437	5.089	663	19.537

Table 3.1.4. t-tests for mean difference of SS and SCA scores based on gender and marital status

p = level of significance (2-tailed)

Table 3.1.4. shows that the value of the t-test statistic was not significant for the mean score differences for sexual communication anxiety based on marital status (p = .067 > .05). Thus, there was no statistically significant between the mean score on SCA for the two categories (married and unmarried participants). All of the other three situations turned out to be significantly different (p < .05, see Table 3.1.4.). In conclusion, SS mean scores differed significantly for men compared to women and for married compared to unmarried participants. Also, SCA mean scores were significantly different for men and women.

3.1.5. Discussion, limitations and conclusion

The results of this study indicate that the exploratory hypothesis referring to the two types of perfectionism was confirmed. There is a statistically significant positive correlation between the global levels of perfectionism and sexual perfectionism. Between a dimension of perfectionism and two dimensions of sexual perfectionism the correlations did not reach a significant level (as indicated above).

The exploratory hypothesis that perfectionism and sexual perfectionism are predictors for sexual communication anxiety, relationship satisfaction and sexual satisfaction was unsupported by our data. The correlations between global perfectionism or sexual perfectionism scores with global scores of the other variables of the study were not significant, thus no further analyses were run. Only two other studies on the topic of sexual communication anxiety (Davis et al., 2006; Babin, 2012) were found at the moment of this research and neither of them related it to perfectionism. Perfectionism's association with social anxiety is well documented in literature (Hewitt, Flett et al., 2003). Since there are a few studies that found significant correlations between perfectionism and communication anxiety (e.g. Shimotsu & Mottet, 2009), the reasons why this was not confirmed by the present research could be either the limitations of this study or the fact that the model did not apply to the sexual domain. Nevertheless, for some dimensions of these three variables significant correlations were found, thus some aspects of the anxiety to communicate on a sexual topic might prove to be predicted by some factors of perfectionism and sexual perfectionism. Our results confirm some previous findings with respect to socially prescribed perfectionism and its correlations with maladaptive characteristics, in this case with two dimensions of sexual communication anxiety.

The present study confirmed the direct association between relationship satisfaction and sexual satisfaction, both of them being inversely associated to sexual communication anxiety. Other studies (Sprecher & Cate, 2004; Butzer & Campbell, 2008; Byers, 2005) also found positive correlations between relationship and sexual satisfaction. The hypothesis that one type of satisfaction is a predictor for the other type of satisfaction was also confirmed on this study's sample. Concerning sexual communication anxiety, statistical analyses performed in this study returned results indicating that it might also be a good predictor for both types of satisfaction. Regarding gender and marital status differences in sexual satisfaction and sexual communication anxiety the present study's results are confirming and extending previous similar results (Sprecher & Cate, 2004) indicating that in comparison to men women were in general less anxious about discussing sexual issues and that they also expressed higher levels of sexual satisfaction.

Another exploratory objective of this study was to examine the possibility of a mediation model between relationship satisfaction and sexual satisfaction through sexual communication anxiety, extending previous findings (Litzinger & Gordon, 2005; Davis et al, 2006). Support was found for the existence of a significant mediation model between sexual communication anxiety and relationship satisfaction, with sexual satisfaction as mediator. Thus, the mediation model proposed in the hypothesis of this study was not confirmed but instead data supported the SCA \rightarrow SS \rightarrow RS model as indicated possible by other studies (Cupach & Comstock, 1990; Montesi et al., 2011). All of these results are preventing drawing any further conclusions with respect to the relation between these variables (SCA, SS and RS) and limit any attempt at a possible statistical clarification of their relation. It is also difficult to identify the reasons why, besides their correlation, the other hypotheses involving perfectionism and sexual perfectionism were not confirmed especially when similar results were indicated by previous studies for some dimensions of perfectionism (Habke, Hewitt, Flett, 1999). Perhaps future research should focus more on these dimensions, this study also finding partial support for these hypotheses when analyzing subscales scores for perfectionism (e.g. socially prescribed perfectionism).

The contradictory results of the present study could also be due to its limitations. Perhaps participants were not motivated enough to fill in the questionnaires in a serious manner (they were not compensated in any way) or perhaps the nature of the investigation (sexuality and the difficulty to communicate about it) might had discouraged some of them, although the measures were anonymously completed. Another limitation to the conclusions of this study might come from the fact that the measures that were used were only translated and (with the exception of DAS) not adapted for use in Romanian. Despite these possible limitations it is significant that the data still confirmed at least partially the study hypotheses that were not fully confirmed.

Study 2 – Systematic analysis of studies evaluating the effects of parental sexuality education programs and interventions

3.2.1. Introduction

The number of parental sexuality education programs dedicated to children and young people's sexual health, evaluated by studies in the international literature, is large enough as to grant the existence of a number of reviews and analyses of the effectiveness (and efficacy) of some of these programs (O'Donnell et al., 2005; O'Donnell et al., 2007; Downing et al., 2011; Wooden & Anderson, 2012; DiIorio, Pluhar, Pines & Jennings, 2006; Vandenhoudt et al., 2010; Moore, Ochiltree & Cann, 2001; Colarossi et al., 2014). The main purpose of this study is that of contributing to the scientific knowledge regarding sexual development and health of young people by identifying and examining empirically validated interventions and theoretical models that could be appropriate for the specificity of a population in Romania.

Although school and family are the two sexuality education providers to which this responsibility/task is usually attributed (and frequently intensely debated, Zimmerman, 2015), there are a multitude of different other sources of influence on the sexuality competence of young people or factors that have an (desired or not)

educational effect, such as: cultural and social context, media, the Internet, friends and peers, health professionals, communities and public organizations (Yu, 2010). The present study adopted a multidimensional perspective on sexuality education and a complementary perspective on formal (school-based) and informal (provided by parents or caregivers/families) sexuality education trying to propose a basis for a scientifically validated alternative helping parents in Romania in their efforts to successfully complete the task of providing sexuality education to their children.

Interventions aimed at helping parents improve the results of sexuality education they provide to their children in general or on a specific topic can be very diverse. They can: have a comprehensive or abstinenceonly approach; be targeted at the general population or certain populations at risk (e.g., young people in rural Kenyan areas); have an individual or group format; be delivered to parents or parents and children; be implemented in various settings such as schools, local communities settings, at home, online or at the workplace; be delivered by trained facilitators, educators, health professionals, community volunteers or peers; be endorsed by public policies or private initiatives; be delivered to specific populations (e.g., mothers) or target specific populations (e.g., adolescents aged 10 to 14 years) based on risk assessment or intervention objectives (Wooden & Anderson, 2012; Wight & Fullerton, 2013; Downing et al., 2011; Woody, Randall & D'Souza, 2008; Eastman et al., 2005; Vandenhoudt et al., 2010; Dilorio, Pluhar, Pines & Jennings, 2006).

The present study examined data in the international literature regarding the *effectiveness* of parental sexuality education programs and the factors contributing to it, effectiveness described by some of the existing studies as being not as high as expected. Results indicate a moderate improvement in knowledge about sexuality and a modest improvement of young people's sexual risk behaviors (Wight & Fullerton, 2013).

The literature search carried out for this study hasn't returned any result consisting of studies describing or evaluating any parental sexuality education program for parents and young people in Romania. More than that, there were no scientific studies found evaluating sexuality education programs for young people in Romania, be they formal or informal. It is possible that health or education professionals or private organizations offer help to parents with providing sexuality education to their children but these interventions remain to be evaluated, if possible, in a scientific manner. It was the purpose of this study to contribute to bridging this knowledge gap and to identify and examine possible relevant psychological factors which could contribute to increasing the effectiveness of future parental sexuality education programs in Romania.

There already are a few systematic analyses in the literature on this topic, analyses identified during the initial stages of this research project or with the systematic search carried out in databases for the purpose of this study (Akers, Holland, & Bost, 2011; Downing et al., 2011; Cardoza, Documét, Fryer, Gold, & Butler, 2012; Wight & Fullerton, 2013; Sutton, Lasswell, Lanier, & Miller, 2014; Lee, Cintron, & Kocher, 2014; Manlove, Fish, & Moore, 2015; Santa Maria, Markham, Bluethmann, & Mullen, 2015; Widman et al., 2016). Based on this and given the great variety in purpose and results of the existing studies it was decided that the present systematic analysis of the studies evaluating the contribution and effects of parental sexuality education interventions should concentrate only on studies published between 2010 and 2015. This decision was based on the fact that, in general, the majority of these systematic analyses are rigorous ones and they include studies published as late as 2010 or even later (the majority of the more recent ones were usually referring to programs in the USA).

3.2.2. Method

A systematic database search was carried out for studies containing evaluations of programs or interventions that involved parents in some way, studies which evaluated the effect of these interventions or programs on the level of sexual risk behavior and on the sexual knowledge and attitudes of these adults' children or on the parent-child communication on sexual topics, these being the effects/outcome generally associated by literature to sexual health in children and young people.

Procedure

Between beginning of January 2016 and end of June 2016 systematic database searches were carried out for studies published in English during January 1st 2010 to December 31st 2015 in the following databases: EBSCO (Academic Search Complete and PsycINFO), Web of Science (Social Sciences Citation Index and Science Citation Index), Taylor & Francis SSH Library, SpringerLink Journals, Science Direct, SAGE Journals Online, PubMed, ProjectMuse and JStor and for grey literature in ProQuest Theses and Dissertations, DART- Europe, Google Scholar and System for Information on Grey Literature in Europe.

Key terms were adapted as a function of the search options of each database and they included variations on the components/dimensions of the topic of interest, i.e. *sex* (or *sexual, sexuality*) and *education* (or *information, knowledge, competence, communication*) and *behavior* and *health* and *risk* and *reproduction* (or *reproductive, pregnancy, STI, STD, HIV* or *AIDS*) and *program* (or *intervention, prevention, reduction*) and *effect* (or *success, outcome, efficacy, effectiveness*) and *parent* (or *mother, father, family, adult, parenting, parental*) and *role* (or *involvement, contribution*) and *child* (or *children, young, youth, adolescent, teen*).

Selection criteria

Studies were selected based on their relevance as a result of identifying such key words in their title, abstract, key words or subject and, when necessary and possible, in the entire text. Although studies with robust design and evaluation (experimental, quasi-experimental, pre- and post-evaluation or longitudinal studies) were searched for, all studies evaluating at least a component (involving parents) of an intervention or any type of parental contribution associated to sexual health in children and young people were initially selected.

3.2.3. Results

The systematic database search returned 13,513 results of which, as a consequence of an elimination process (for details see Figure 3.2.1.), a number of 18 studies were kept in the analysis. These studies and the programs and interventions they assessed were described in detail (in the PhD thesis) based on their major components and features.



Figure 3.2.1. Flowchart of the process of selection and inclusion of studies in the systematic analysis

The majority (11 out of 17) of programs evaluated by the studies included in this analysis had been implemented in the United States of America. The rest of 6 programs were form Mexico, the Bahamas, Japan, Great Britain, South Africa and Kenya. Two of the 17 evaluated programs targeted populations in rural areas, nine were evaluated on urban populations and rest were not specifically designed with respect to this aspect, being directed to people from specific geographic or administrative area or at national level populations.

The programs were targeted (directly or indirectly) towards very diverse children and young people populations: 11 programs solely for adolescents and pre-adolescents in secondary school (aged 10 to 15 years), 3 programs for adolescents in high school (aged 15 to 18 years), 3 programs for pre-adolescents and adolescents aged 12 to 18 years; one program only for girls (*Especially for Daughters*); 5 programs for Latino or African-American parents and children in the USA; 1 program for adolescents in mental health treatment (*Project STYLE*); 1 program for adolescents from families in homeless shelters (*The HOPE Family Project*); the majority of programs were developed for adolescents and young people from areas and circumstances with higher risks for negative outcome associated to sexual health (see Table 3.2.1.).

Although parent-child communication is (explicitly or implicitly) a component of every sexuality education parenting program, certain programs are concentrating exclusively on improving it while others are treating it as a direct or indirect means of reaching the intervention goals or parenting goals in general. Two of the programs in this analysis were centered only on parent-child communication on sexuality and sexual health topics (*Cuidalos* - Villarruel, Loveland-Cherry, & Ronis, 2010; *CImPACT* - Wang, Stanton, Deveaux, Li, Koci, & Lunn, 2014; Stanton, Wang, Deveaux, Lunn, Rolle, Li,... & Gomez, 2015). Five other programs aimed at improving parent-child communication on sexual topics and sexual risks together changing other sexual-health-related factors (*Families Matter!* - Vandenhoudt, Miller, Ochura, Wyckoff, Obong'o, Otwoma, ... & Buvé, 2010); *Parents Matter!* - Miller, Lin, Poulsen, Fasula, Wyckoff, Forehand, ... & Armistead, 2011; *Let's Talk!* - Bogart, Skinner, Thurston, Toefy, Klein, Hu, & Schuster, 2013; *STYLE* - Brown, Hadley, Donenberg, DiClemente, Lescano, Lang, ... & Oster, 2014; *Sex, Sense & Relationships* - Turnbull, van Schaik, & Van Wersch, 2013).

Of the 17 programs evaluated by the studies in this analysis 9 were addressed to families (family-centered) while 8 were parent-centered (in each case only one parent participating or being evaluated, be it based on design or participation) (see Table3.2.1.).

Design was experimental for the majority of the interventions/programs in the analysis: 13 programs (14 studies) evaluated in clinical controlled/randomized trials; 2 studies had a pre- & post- intervention evaluation (Turnbull, van Schaik, & Van Wersch, 2013; Vandenhoudt et al., 2010); one study was a non-randomized clinical study (Beharie et al., 2010) and another was a quasi-experimental prospective analysis that began as a cluster randomized clinical trial (Campero et al., 2011).

The theoretical frame of the evaluated programs was very diverse. The majority of programs based their approach on more than one model/theory, some interventions being modelled on previous ones. Three studies offered very little information on the theoretical approach of their program (Turnbull, van Schaik, & Van Wersch, 2013; Miller et al., 2011; Guilamo-Ramos et al., 2011) (see Table 3.2.1)

Among the most frequently used theoretical models and approaches were the social-cognitive theory and the theory of social learning, the theory of planned behavior and theory of reasoned action, the ecological systems theory (social-ecological model) and specific risk behavior theories based on this (i.e. ecodevelopmental theory) protection motivation theory (see Table 3.2.1.). There were many other models or approaches each mentioned once by these studies.

The outcomes/effects of these programs were evaluated in young people as well as participant parents (with a few exceptions for parents). Regarding the effects, they had on children and young people: sixteen of the programs reported statistically significant positive effects (i.e. improvements of factors associated to sexual health) although not on all dimensions targeted by the programs. One evaluated program (*Let's Talk!* Bogart et al., 2013) improved the level of adolescents' comfort of talking to parents about sexuality and HIV and the number of topics they discussed but the effects failed to reach statistical significance. Seven studies reported programs had significant positive effects regarding different aspects of parent-child communication on sexual topics. Adolescents' knowledge about sexuality and sexual health was significantly improved by 7 programs and 2 programs reported positive effects regarding HIV prevention and safer-sex-behavior self-efficacy (see Table 3.2.1.)

Positive changes in various behaviors (they are being the most anticipated ones), either preventing/reducing sexual risk behavior or increasing levels of safer/protective behavior, were reported by 10 of the studies analyzed here (see Table 3.2.1.).

Although their relevance is an indirect one (but not less important) positive significant changes were reported for various factors characterizing parents participating to the programs, such as: sexuality-education-related knowledge; perception of comfort with communication, of self-efficacy and of frequency of communication on sexual topics; monitoring and identifying communication opportunities; specific behavior (e.g., providing/offering condoms to one's own children). Six of the studies have not evaluated effects of the programs at parents' level (see Table 3.2.1.).

Program location	Program objective	Target population	Theoretical approach	Participants	Evaluation	Effects at adolescents' level
11 programs - USA	5 programs - HIV/AIDS prevention	11 programs - adolescents & pre- adolescents (10 - 15	8 programs - multiple theories & models	9 programs – families (components for	13 interventions – randomized/ controlled clinical	16 programs – statistically significant positive effects 1 program – no significant change
6 programs – Mexico, the	9 programs- prevention/reduction of	years)	7 mmo omorros	parents & children)	studies	
Bahamas,	sexual risk behavior in	3 programs -	7 programs – mentioned other			7 programs – significant outcomes in communication aspects: perception of parent-
Japan, Great Britain, South Africa, Kenya	young people and delaying sexual life initiation	adolescents & young people (15 - 18 years)	interventions & programs modelling	8 programs - parents	2 studies - pre- & post- intervention evaluation	child communication (3 programed), HIV/AIDS or difficult sexuality issues frequency of communication (1 program
2 programs –	3 programs – various	3 programs – pre-	*most frequently	*only one parent participated and		each), communication about sexual risk reduction (1 program), communication about
rural areas	aspects of sexual health and education	adolescents & adolescents (12 - 18	used: social- cognitive & social	was evaluated in either situations	1 study - non- randomized	protection, using condoms and HIV/AIDS protection (2 programs)
9 programs –		years)	learning theories		clinical study	
urban areas	1 program – prevention/change of risk factors for date abuse	1 program – only girls 5 programs - Latino or	(7 times), theory of reasoned action & theory of planned behavior		1 study - quasi- experimental design	7 programs – significant outcomes: knowledge about HIV/AIDS (4 programs), about sexuality (1 program), about safe sex (1 program) & about emergency contraception (
	4 programs – influencing associated risk factors	African-American young people in USA	(7 times), social ecological		*majority of	program)
	(drugs and alcohol)	1 program –adolescents	approach (ecological		RCTs had two conditions:	2 programs – significant effects: perceived self-efficacy regarding HIV protection and
	2 programs – sexual-risk parent-child	in mental health treatment	systems theory) & ecodevelopmental		intervention & control (or 3	safe sexual behavior
	communication	1 program – adolescents	theory (5 times)		conditions)	10 programs, significant change in behavior: delayed sexual life initiation (4 programs),
	5 programs - improving parent-child communication on sexual	from homeless families in shelters				refuse/ avoid intercourse or sexual behavior (4 programs), sexual risk behavior reduction (5 programs), condom-use behavior and skills (2
	risk and sexuality	Majority of programs- adolescents in areas or circumstances with high risk for HIV/AIDS or				programs)
		other sexual risk				

Table 3.2.1. Synthetic description of relevant components and characteristics of evaluated programs

3.2.4. Discussion, limitations, conclusion

This study identified a considerable number of programs and interventions with objectives associated to sexual health in young people, programs which were implemented in various contexts and which, besides the common characteristic of involving parents (if not exclusively at least to a certain extent) as participants, were addressed to very different populations. There were programs to which only parents participated but also programs involving children and young people in the proposed activities, family-centered or parent-centered programs, programs dedicated to pre-teens or to late teens, programs developed for people of a specific gender, ethnicity or socioeconomic status or programs for populations at risk for particular sexual health issues.

The results of these interventions and programs, although very different, indicated statistically significant changes (with the exception of one program). These changes were in adolescents' knowledge, cognitions and behaviors, in some parental characteristics (e.g., self-efficacy, knowledge about sexuality and sexual health) as well as in dimensions associated to the parent-child relationship (e.g., communication, monitoring, permissiveness).

Many of the programs (approximately one third) included in this analysis were developed for the purpose preventing HIV/AIDS.

The majority of participant evaluations were carried out using self-report instruments and this could be a limitation of the evaluation studies in this analysis. Nevertheless, the majority of the studies had medium to high quality designs and reported significant results. The measures employed by the studies had good psychometric properties, the design had a follow-up evaluation for almost every study (even at an interval longer than 12 months) and participant retention was generally satisfying.

In conclusion, the aspects that could be considered as significantly enhancing the chances of success for such a program were difficult to isolate. Although there were some theoretical approaches (as mentioned above) preferred by the authors who developed the frameworks for the programs they proposed, it couldn't be said that a specific theoretical approach (or, for that matter, any other dimension of a program) guaranteed the effectiveness of a program. Involving only one parent in the program seemed to be a favored method even in the case of family-centered interventions, not only for parent-centered ones, especially since literature indicated that it did not decrease the chances of a program's success (Downing et al., 2011). Also, adolescents participating in the program was not a decisive factor for its success (half of the programs involved only parents while the other half had activities dedicated to adolescents as well or common parent-child activities).

A characteristic of the programs in this systematic analysis was the fact that parent-child communication took (explicitly or implicitly) a central place within them.

The multitude of factors and processes associated to sexual health and the diversity of programs and interventions targeting them made the task of carrying out a meta-analysis of the effect-size very difficult (methodologically faulty). The studies that evaluated these programs measured their effects on very diverse factors or on different dimensions of the same factor (e.g., parent child-communication), usually with different instruments or different conceptualizations, reason for which the majority of systematic literature analyses are narrative ones.

Nevertheless, it could be said that a solid theoretical framework, a rigorous evaluation design and an appropriate structure and implementation are increasing the chances of a program being effective and reliable.

Study 3 – Qualitative thematic analysis of data from an online medium (parenting discussion forum) on parental practices, beliefs and needs regrading sexuality education of children and young people in Romania

3.3.1. Introduction

Besides the everyday direct social interactions, the Internet is a medium that allows individuals to express their parental needs and to search for information, resources and support to help them address those needs (Dworkin, Connell & Doty, 2013). The last two decades have brought an increase in the quantity and quality of the online educational information and resources, as well as of the websites and applications parents can access to interact with other parents or to obtain help and support from health professionals (Capurro et al., 2014; Clarke & Van Ameron, 2015). As a consequence, a number of studies have lately started to explore the dimensions of the benefits and costs that the Internet and online activity and interactions hold for those directly and indirectly involved in them (for review see, Pendry & Salvatore, 2015).

There are numerous websites, blogs and groups dedicated to parenting and to children's development and health while other sites are allocating them considerable sections. These are frequently accessed by parents, especially mothers, who are using the Internet in a higher percentage than non-parents (Duggan, Lenhart, Lampe & Ellison, 2015). These blogs, websites and social networking sites (SNSs, or social media) may either only offer information and share resources or, in many cases, they may offer interaction opportunities for members or

for the general public. Some of the sites and blogs are created by health professionals (e.g., e-Health platforms) or are enlisting professional help while others are not. As a result, although not developed particularly for that purpose, especially in the case of social media, these SNSs (e.g., Facebook, YouTube) end up sharing health-related information that is sometimes not scientifically validated and incomplete or inaccurate (McRee, Reiter & Brewer, 2011; Ventola, 2014).

Parents' contribution to the healthy sexual development of their children, as part of their general well-being, is well documented by literature and numerous programs that aim to help parents in their efforts as sexual educators exist (DiIorio, Pluhar & Belcher, 2003; Wight & Fullerton, 2013). Parents are concerned with *what*, *when* and *how* to communicate and to behave with their children regarding sexual topics (Dyson & Smith, 2012; Fisher et al., 2015). As previously mentioned here, researchers and parents themselves have identified a number of barriers that they perceive are making these tasks more difficult (Walker, 2004; Wilson, Dalberth, Koo & Gard, 2010; Stone, Ingham & Gibbins, 2013; Malacane & Beckmeyer, 2016). However, only a few studies exist regarding the use of social media and of asynchronous discussions boards (or discussion forums) by parents seeking information regarding their children's health in general or on specific topics (e.g., pregnancy, early parenting, childhood obesity, mental health, congenital heart diseases and other chronic health conditions) (Appleton, Fowler & Brown, 2014; Bussing, Gary, Mills & Garvan, 2007; Goldman & Macpherson, 2006; Bouche & Migeot, 2008).

The systematic search (part of this study) for published studies investigating parents' use social media for sexual-health-and-education-related information and parenting support returned no results, either for parents in Romania or in other countries. The few existing studies investigating the use of social media and asynchronous online discussion boards by parents seeking child-health information and support are pointing out the advantages and disadvantages of these mediums use for parents. Online discussions forums are a feature of many parenting websites that are able to connect a larger number of "users" (compare to off-line interactions), who could potentially offer encouragement, insight and support with specific issues. They connect a diversity of people from remote locations but with similar particular interests and needs, mostly under a condition of anonymity (only partially true in Facebook's case), which facilitates sharing of personal experience without fear of judgement or stigma (particularly relevant in the case of sexuality and sexual-health-related discussions). Other positive aspects of people using these forums and social media are: the possibility of accessing, when available, professional support and advice and of contributing to a conversation or receiving an answer at any time, the possibility of helping people learn new skills and the fact that they could produce not only individual but also societal benefits. There are also negative aspects, such as the lack of credibility and trustworthiness of the information, the possible proliferation of inaccurate and poor-quality information that might have harmful consequences and the risk of exposing people to negative interactions with other users (Appleton, Fowler & Brown, 2014; Dworkin, Connell & Doty, 2013; Newborn, Fukkink & Hermanns, 2013; Pendry & Salvatore, 2015).

Usually, but not always, parents use the Internet to find information on parenting and child health in addition to the information they have already obtained from professionals in off-line settings (Dworkin, Connell & Dotty, 2013). The majority of parents in one study described their experience of using these mediums in terms of being helpful or very helpful (Goldman & Macpherson, 2006). In another study, parents thought the Internet and social media were generally supportive, contributed to the normalization of their experiences, allowed them to feel useful for others and helped them feel less confused about certain issues (Appleton, Fowler & Brown, 2014). Nevertheless, some studies revealed that a significant amount of the parents' experience with these mediums was not so positive and they identified high levels of criticism, judgement, inappropriate or aggressive language and even harassment in the interactions (Appleton, Fowler & Brown, 2013).

Three major themes of parental discourse around child-health and Internet usage were identified by literature: (1) seeking information and advice, (2) sharing information and experience and (3) seeking and creating social support (Appleton, Fowler & Brown, 2014; Dworkin, Connell & Doty, 2013). The present study aimed to contribute to the gap in the knowledge about the needs, beliefs and practices of parents regarding the sexual health and education of their children by identifying these as they appeared from parents' discussions on a Romanian-based discussion forum. This subchapter describes the findings of this exploratory study, the results of a thematic analysis performed on a data set collected from the online discussion forums mentioned above.

3.3.2. Method

Procedure

The website whence the data set was collected was identified as being one of the most popular parenting websites in Romania, which claims to be the biggest online community of parents in Romania. As a result of a purposive search (with key words such as parent, parenting, sex education, sex health, child, young people, adolescent, communication) of the discussion forum for a period of five month (from December 2015 to April

2016) a total number of 5 discussion threads relevant for the objective of this study were identified and selected. The oldest posts of these threads date back to 2012 while the most recent ones are from April 2016.

Due to ethical considerations, the name of the website was not revealed here even though members' identity and personal information is protected by website policy and the anonymity provided by usernames. The content of these public posts was made available to the public by the website and accessing, observing and retrieving it was not dependent on member status and could be done by the authors without breaching the policy of the site. When processing the data, any details that could help identify users, including usernames, were removed and new numerical codes were attributed to posts. An inductive approach was used to develop codes for the data, followed by the identification of sub-themes, themes and main themes.

Data sample (set)

In this study, the data set analyzed consisted of a total of 5 discussion threads composed of n = 422 posts written by a total of N = 80 different users. Approx. 10 of them posted only once on these threads while a similar number of them posted between ten and thirty times the others being situated within this interval (2 - 10 posts).

Data analysis

Thematic analysis is a qualitative analysis method that is widely used in psychological research (Braun & Clarke, 2006) and has been previously used in studies evaluating various parental discourses (Arden, Duxbury & Sultana, 2014) and parental beliefs, expectations and practices regarding the sexual health and education of children as described by parents (Stone, Ingham & Gibbins, 2013). Semantic thematic analysis was chosen for this study because of its flexibility and compatibility with this type of data and because it is well-suited for identifying and reporting patterns or themes across a data set (Braun & Clarke, 2006). Themes or patterns of meaning were searched for across the data set, constituted of the n = 422 post of parents on several sexual health issues and parenting discussion threads from the online forum.

3.3.3. Results

After completing the six phases of thematic analysis (see Braun & Clarke, 2006) we were able to identify a multitude of (sub-)themes that were later grouped, based on their interpretation, into other themes and main themes. Three major themes were identified: 1) *sexuality education significance*; 2) *sexual development and sexual behavior of children and young people* and 3) *parenting sexually developing children and young people*. A fourth theme, miscellaneous, was created for all the sub-themes that did not fit into any of the previous three categories (see Table 3.3.1.)

Sexuality education significance

Parents' debates and discussions concentrated around themes such as, what constitutes sex education and which are the best approaches to it, which are the sources of sexuality education and what their role as sex educators is. Parents sought and provided information and personal opinions regarding the meaning of sexuality education, about the role of abstinence-oriented or a more comprehensive sexuality education and inquired and about the appropriate age for sexuality education (e.g., (2/1/4/3) – "after all, what is sex education and what is it made of? Is it its ultimate purpose the preservation of children's/adolescents' chastity or is it the consumption on a large scale of contraceptives that destroy the hormonal system of girls from a very young age?"; (2/5/7/2) - "if sex education starts when is needed by each child (I agree), then the 15 years old limit for it can't be generally applied"; (2/1/7/1) "my opinion, from a parent's perspective, is that it shouldn't start at a certain age but that we should be open to it from their first questions"; (2/1/1/4) – "parents came to school to make sure that there won't be a psychologist or a doctor telling such shameful things to their children, then 8th graders").

The majority of parents expressed the opinion that parents' role in the sexual health and education of their children is a central, for some even an exclusive one, while others also shared beliefs and information about the contribution of schools, of educational and health professionals, of the media and of the extended family and peer group. Parents requested (general and specific) information regarding resources that would help them with their efforts and suggested books, articles and films (e.g., (2/5/7/6) – "I think that the information received from within the family is essential and it should be supplemented with information from school and with parents' good knowledge of the peer group that the child hangs out with"; (2/3/5/2) – "this is the funny one [book] about which, I am pointing out to you, some parents might have a shock, so read it before you give it to your child").

A significant number of parents expressed the opinion that information leads to curiosity and equalization of the children while other were altogether skeptical regarding any effects of sexual education. A considerable portion of the discussions revolved around the role of religion, morals and of the community norms and cultural aspects in influencing the approach to sex education both in schools and at home (e.g., (2/1/4/4) -"I think that as long as the mass-media profoundly perverts human sexuality, parents are doing sex education in vain").

Major themes	Themes	Sub-themes
	1.1 Meaning (what is) of sexuality education	1.1.1 information produces sexualization and unwanted consequences 1.1.2 good information helps
1. Sexuality	1.2 Best approaches of sexuality education	1.2.1 only minimal (when enquired about) information to children1.2.2 information on various aspects of sexuality
education significance	1.3 Sources of sexuality education	1.3.1 media, books and the Internet1.3.2 friends, colleagues, peers, parents, schools, professionals
	1.4 Parents' role in sexuality education	1.4.1 parents have the main (even exclusive) role1.4.2 parents play an important (not exclusive) role
2. Sexual development and	2.1 Sexual life of adolescents	2.1.1 sexual behavior of children and young people2.1.2 physical and mental development of children and adolescents2.1.3 sexual attraction and romantic feelings2.1.4 sexual orientation
sexual behavior of children and young people	2.2 Controlling and influencing adolescents' sexual life and its consequences	2.2.1 school life, social life and sexual life2.2.2 safe sex and consequences of sexual activity2.2.3 parental and environmental influences on the sexual behavior of children2.2.4 prevention and management of sexual life
3. Parenting sexually developing children and young	3.1 Parents - protectors of children's safety 3.2 Parents as sexual educators 3.3 Parent-child communication on	 3.1.1 parents cannot protect their children despite their intention 3.1.2 parents can/should help/protect children 3.2.1 parents are good sexual educators 3.2.2 parents need support, help and resources 3.3.1 minimal/absent communication 3.3.2 age-appropriate communication
people	sexuality 3.4 Parenting-associated emotions	5.5.2 age-appropriate communication
4. Miscellaneous	4.1 Positive interactions between (internet) users4.2 Negative interactions	4.1.1 encouragement and self-disclosure4.1.2 humor4.2.1 making judgements about others
	between users	4.2.1 making Judgements about others 4.2.2 sarcasm/irony

Table 3.3.1. Themes and sub-themes identified in the data collected from the online parenting discussion forum

Sexual development and sexual behavior of children and young people

Two patterns of parental discourse on sexual development and sexual behavior in children and young people were identified in the analyzed data items: 1) sexual life of adolescents (with sub-themes: sexual behavior of children and adolescents; physical and psychological development of children and adolescents; sexual attraction and romantic feelings; sexual orientation); 2) influencing and controlling the sex life and consequences of sex life in adolescents (sub-themes: school life, social life and sex life; safe sex and consequences of sex life; parental and environmental influence on children's sexual behavior; prevention and management of sex life).

The majority of the information parents asked for or offered revolved around physical and psychological f features of adolescents and the age-appropriateness of various sexual behaviors met in adolescents although there were references made to earlier developmental periods. Parents expressed a wide variety of sometimes contradicting beliefs and attitudes regarding the developmental changes that their children in particular and children and young people in general are going through from a sexual perspective (e.g., (3/3/2/1) -"my darlings, a lad at 15 (and a half) spends a lot of time thinking (reading, talking, watching) of sex").

The majority of parents expressed the belief that sexual activity is appropriate for adult age although not all of them agreed. Many of the parents equated sex life with maturity, stability and responsibility and love while others believed that sexual attraction is separate from love and feelings (e.g., (3/2/4/1) - "it's early [15 ½ years old] but there is nothing scandalous about it if he and the girl are sincerely in love"). Only a few posts were referring to sexual orientation but in positive terms and people were concerned with how to recognize it and talk to children about it.

Many posts contrasted a demanding school life and academic success with sex life in adolescents (e.g., (4/2/2/1) - "mine is 17 and has no time for anything except school"). A lot of parents' posts contained a gendered approach towards sexual behavior and the factors influencing it. When referring to consequences of sex, the majority of parents actually meant negative consequences. A recurring aspect of the posts was the presence of criticism and judgmental statements made by parents based on their interpretation of others' opinions, especially on the topic of safe sex, contraception and sexual rights of young people (e.g., (4/3/5/5) -"I see you are very relaxed talking about birth control pills for 16-year-old girls. You are probably familiar only with their effect in avoiding pregnancy. Until you encourage your own daughter to take something like this you should read a little bit, at least to do it knowingly").

Parenting sexually developing children and young people

Regarding the parenting practices revolving around the sexual development of children and young people, the following themes were identified: parents as guardians of their children's safety; parents as sexual educators; parent-child communication about sex; parents' emotions about parenting.

Parents agreed almost unanimously that children's well-being and safety is their responsibility and discussed what they can do to preserve it, asking for specific information and advice on particular problems they described and making suggestions mainly based on personal experience. The majority of them suggested a more restrictive approach to parenting while others, although not so many, suggested a more relaxed approach. Many parents referred to open parent-child communication but in terms of parents answering questions when asked (e.g., (5/15/8/2) - "all the parents I know want their children to excel in school, not to have boy/girlfriends or sex or other distractions from what is important"; (5/6/1/1) - "I know that if you have conversations with your children about STIs, about protection, about having sex when ready and not out of curiosity, or because of peer pressure or at girl/boyfriends' pressure and without nagging them too much, without saturating them with the negative consequences then you should be confident that everything will be alright"; (2/3/7/3) - "I plan to answer on point and without unnecessary, unsolicited details to everything they ask").

What is that parents can teach children to ensure their safety and well-being was mentioned in the majority of posts and various resources and sources were referenced (books, films, videos, family members and professionals). Parents had little concerns regarding the scientific validity of their opinions and suggestions and disputed other' based on experience and own beliefs (e.g., (5/7/1/1) - "I'm not talking about attitudes, that's deceiving for me, I'm not good at that ... I'm talking about the body. Even though I saw that some are putting these changes down to the usual hormones, I maintain that I can guess with precision (over a few months) the moment of becoming sexually active, just for girls (it might also happen to boys, but I haven't looked at them)"). A lot of anxiety, criticism, sarcasm and defensive arguments about parental practices and skills were present in the posts but there was also humor, communication of empathy and support for other parents and their decisions and opinions.

3.3.4. Discussion, limitations, conclusion

The aim of this study was to explore how parents and potential parents on a Romanian-based online discussion forum reported their needs, beliefs and practices regarding the sexual health and education of their children or of children and young people in general.

As presented above, Romanian-speaking parents had very different responses regarding sex education information and advice seeking and this points towards the strong possibility of parents not attributing the same meaning to sexual education and of them forging and expressing attitudes towards it based on their personal definitions. Previous studies have pointed out the fact that parents have very different skills, beliefs, attitudes and personal values regarding the sexuality and sexual education of children and sometimes these might act as barriers to sexual education (Dyson & Smith, 2012). Also, the reliability of recommended sources and resources for sex education was a point of debate, many parents preferring personal experience to scientific knowledge and usually not indicating the source of their information. Nevertheless, the posts revealed that there was a strong desire on the part of parents to gain information and advice mostly from other parents but also from professional sources.

A significant proportion of the posts pointed towards the fact that parents considered it a successful practice in terms of sexual health of their children to address the topic of sex only when asked or only when children reached a certain age parents deemed appropriate for a "sex talk" and, as presented above, that usually meant late teens. Similar findings about the parent-child open communication about sex were reported by previous studies (Kirkland, Rosenthal & Feldman, 2005). This aspect could also be worth taking into account by health professionals and educational experts in tailoring their approaches and interventions accordingly. That in itself might constitute an issue since some of the parents disagree with professionals' involvement in their children's sex education.

Parents' definitions of sexual health and well-being might be very different, many of them referring to it in terms of the absence of negative consequences, such as sexually transmitted infections and unwanted pregnancies or abortions and very few mentioning the possibility of positive aspects related to sexual life. Parents also shared misconceptions and scientifically inaccurate beliefs with other parents, especially about the physical changes (not due to puberty or pregnancy) that are supposedly evident on the bodies of sexually active adolescent girls and about the safety of using some forms of contraception in the detriment of others (e.g., birth control pill instead of condoms).

The underlying theme of all the posts was the difficulty of parenting. The majority of parents mentioned it and attributed an external locus of control for it, but the anxiety about their parenting and children's well-being was frequently mentioned and the requests for advice and the sharing of own experiences and of information suggested the belief that they could still influence the outcomes. Parents usually responded to other discussion-participants' requests for advice and information by being most of the time supportive although the amount of negative interactions was not negligible. They made intergenerational and intercultural comparisons and often generalized their conclusions, many times expressing a "one fits all" view when asking or giving advice.

The conclusions of this study are limited by the choice of data, the fact that it was collected from a single online parenting discussion forum and in one period of time.

The results of this thematic analysis of data sampled from a Romanian-based online parenting asynchronous discussion board show that parents are frequently using this medium in interactions with other parents. Romanian-speaking parents use this medium to seek and share information, advice and experience and to receive and offer support related to their expressed needs and concerns about the sexual health of their children and about their parenting skills relevant for it. It seems that parents do benefit from these interactions to a certain extent, especially by creating online support communities and accessing a considerable and diverse amount of information but there are also concerns about the effects of the negative interactions that they might be exposed to and about the reliability of the information thus exchanged. It is yet unclear how this could affect their parenting practices and skills. This could constitute a future line of research on this topic.

Study 4 – Adaptation and psychometric validation of the Romanian version of an instrument assessing practices, beliefs and confidence of parents in Romania in their capacity to communicate with their children on sexual topics

3.4.1. Introduction

Serving the purpose of allowing for a more ample and reliable investigation of this scientific domain, one of the contributions of this research project was the adaptation of a measure for parenting characteristics (such as attitudes, beliefs, expectancies and knowledge) of parents in Romania regarding parent-child relationship and sexuality education of children and young people. This undertaking was justified by the absence of such an assessment instrument in the Romanian literature, one that could be sensitive to the specificity of the population (parents in Romania) and also have wider relevance, at the same time having good psychometric qualities that could eventually allow for trans-cultural studies and comparisons. Such an instrument and the data obtained by using it augmented the other results of this project by nuancing previous ones (see Study 3) and offering them a more objective and generalizable character. To reach this objective a number of stages were covered: literature search and identification of appropriate/compatible instrument; authors' permission for adaptation use; translation and back-translation of instrument; item analysis and selection; pre-testing and psychometric evaluation of final version of measure; testing of structural relations between subscales (if they existed) (Borza, Damasio & Bandeira, 2012; Vreeman, McHenry & Nyandiko, 2013).

Based on compatibility and its qualities, the instrument chosen for adaptation was the *Parenting and Child Sexuality Questionnaire* (PCSQ, Morawska, Walsh, Grabski, & Fletcher, 2015).

The main author of the questionnaire was contacted, provisional agreement for PCSQ adaptation to Romanian was obtained, and independent translation by two bilinguals (one professional translator unfamiliar with the topic and the researcher) was completed. The resulting items (in Romanian) were analyzed by a committee of experts in this area of research and appropriate version was selected to be pre-tested with the help of a focus group. The focus group (5 parents of ages between 35 to 45 years, 4 women and one man) completed a pen-and-paper version of PCSQ and the feedback requested and obtained from them regarding the PSSQ theme, items clarity and aspect, length of questionnaire and their subjective experience of completing it was incorporated in the final version of the items. This final Romanian version of PCSQ was translated back into English by an independent authorized translator and both (Romanian and English) versions thus obtained were sent to the principal author of the original version of the QCSQ (Morawska et al., 2015) whose examination of these two versions granted final agreement to adapt the questionnaire for use in Romanian.

The next step in the adaptation and validation of PCSQ (Morawska et al., 2015) process was the evaluation of its psychometric properties in a pilot study detailed below.

3.4.2. Method

Participants and procedure

The study analyzed data collected form N = 147 participants who completed the survey during March-April 2017 in an online version made available on <u>www.esurveycreator.com</u> with the help of a provided link. The sampling method was a convenience one, participants self-selected in a "chain" or "snowball" manner (Clark-Carter, 2010). The only inclusion criterion was the request that adult respondents should be responsible in a way

(biological, adoptive or step-parents or legal guardians) of at least one child or young person (aged under 18 years) in Romania. Sociodemographic characteristics of the participant sample are presented in Table 3.4.1.

Parents accessing the link to the study were able to opt in or out of participating after reading a brief description of its character and of the anonymity and confidentiality of information provided by them. Informed consent was constituted by parents' choice to continue with the survey after reading this information. Completing the survey was estimated at a maximum of 30 minutes. An e-mail address created for the purpose of this study was provided in case participants had additional questions or inquiries.

Variable			N (%)
Age		M = 37.81 $SD = 5.896$	
Sex			
	Feminine		138 (93.9)
	Masculine		9 (6.1)
Marital status			
	Married		113 (76.9)
	Long term relationship		7 (4.8)
	Single		3 (2.1)
	Divorced		24 (16.3)
Education level			
	PhD		14 (9.5)
	Master's		59 (40.1)
	Bachelor's		54 (36.8)
	College		1 (0.7)
	High school		15 (10.2)
	Apprenticeship		3 (2.0)
	Secondary school		1 (0.7)
	,		
Employment status			
1 2	Employed		114 (77.6)
	Unemployed		8 (5.4)
	Student		1 (0.7)
	Liberal professions		17 (11.6)
	Stay-at-home parents		3 (2.0)
	On parental leave		4 (2.7)
Number of children responsible	1		× /
for			
	1		61 (41.5)
	2		80 (54.4)
	3		5 (3.4)
	7		1 (0.7)
Age of participants' children		M = 9.22	()
	Above 18 years		226 (93.0)
	Under 18 years		17 (7.0)

 Table 3.4.1. Sociodemographic characteristics of the study participant sample

M = mean; SD = standard deviation

Evaluation of test-retest reliability of PCSQ was carried out with data coming from a convenience sample of N = 11 participants (of the 40 privately contacted) which completed both phases (2 weeks apart) of the study. Each phase took less than 15 minutes to complete. The participants had a mean age of M = 40 years, SD = 2.68 years; 10 participants were women and 1 participant was a man; 10 participants married while one divorced; all participants had university degrees; 6 participants had 1 child, 4 participants had 2 children and one participant had 3 children.

Instruments

1) socio-demographic questionnaire developed for the purpose of this study; 2) Parenting Self-Efficacy Scale, (PSES, Dilorio et al., 2001b) and 3) Parenting and Child Sexuality Questionnaire (Morawska et al., 2015). The Parenting Self-Efficacy Scale (Dilorio et al., 2001b) is a 17-Likert-type-item measure used to assess the level of parents' perceived self-efficacy regarding their capacity to discuss sexuality topics with their children. Studies using PSES showed satisfactory or good psychometric properties (Fisher et al., 2013).

The *Parenting and Child Sexuality Questionnaire* (Morawska et al., 2015) is a complex measure developed by Morawska and colleagues to evaluate some child-sexuality-parenting-related aspects. PCSQ has 62 items (3 open-ended, 4 multiple choice and 55 different Likert-type scales) assessing parents' confidence in their capacities to communicate with their children about sexuality, parents' knowledge, experiences, practices and behaviors in this respect and also parents' beliefs about the importance of certain sexuality-information sources and of the content of parental sexuality education programs. Total scores could range from 72 to 422. PCSQ has items such as:" There are sexuality topics I would not be comfortable discussing with my children."," Where do you get information about children's developing sexuality from?"," How important do you feel your child's

school is in the sexuality education of your child?" or" Have you used a current event or media story to start a conversation with your child about sexuality?". Reliability (internal consistency) of PCSQ evaluated by Morawska and colleagues (Morawska et al, 2015) was from adequate to strong (Cronbach's $0.65 \le \alpha \le 0.95$), depending on the group/set of items (Likert-type) analyzed.

Data analysis

Data analysis was performed with Statistical Package for Social Sciences (SPSS 17.0) program. The following statistical procedures were used: data frequency distribution normality tests (Shapiro-Wilk tests), correlation analyses (Cronbach alpha coefficients & Spearman correlation coefficients), sample size adequacy tests (Keiser-Meyer-Olkin tests), internal structure factor analyses (exploratory factor analysis - principal component analysis), paired difference tests for repeated measures (Wilcoxon signed-rank test).

3.4.3. Results

Regarding the Likert-type items of the questionnaire, authors (Mariska et al., 2015) of the English version of PCSQ have described 5 (or 6, given that one of them was used twice for different purposes) sets of items based on what they assessed and reported Cronbach alpha internal consistence coefficients for each of these *sets of items* (Morawska et al., 2015). The present study initially used the same sets of items to run analyses on them. Results concerning internal consistency of items were very similar to the ones reported for the English version of PCSQ. For the Romanian version of the PCSQ, for item sets from 1 to 6 the coefficients were $\alpha = 0.727$, $\alpha = 0.925$, $\alpha = 0.938$, $\alpha = 0.797$, $\alpha = 0.698$ and respectively $\alpha = 0.936$ compared to $\alpha = 0.77$, $\alpha = 0.90$, $\alpha = 0.95$, $\alpha = 0.78$, $\alpha = 0.65$ respectively $\alpha = 0.94$ for the same sets in the English version of PCSQ (Mariska et al., 2015).

PCSQ global scores for participants in the present study had a mean of M = 338.6, standard deviation SD = 52.38. The internal consistency coefficient Cronbach alpha for all the items of the Romanian version of PCSQ had a value of $\alpha = 0.949$ which indicates a strong internal consistency. The corresponding coefficient for the English version was not reported (Mariska et al., 2015).

Given the results of the normality Shapiro-Wilk test of the frequency distribution of PCSQ global scores (and of some of the item sets scores) the following tests performed on these data were non-parametric ones, such as the tests used for evaluation of the test-retest reliability of PCSQ, i.e. the Wilcoxon signed-rank tests (see table 3.4.2.) and (supplementary) the Spearman rho correlation coefficients.

	N	Т	Critical T for N value p < 0.05
PCSQ retest – PCSQ test	11	15.5	10

Table 3.4.2. Values of the statistic of Wilcoxon signed-rank test and number of differences

T = sum of ranks of lower frequency sign; N = number of differences

Results indicate (see Table 3.4.2.) that differences between paired teste and retest PCSQ global scores (or for the sets of items scores) were not significant. Values of the Spearman r_{est} correlation coefficient were significant for global PCSQ scores ($r_s = 0.815$, p < 0.01) and for the sets of items as well. As a consequence, both tests indicated that the Romanian version of PCSQ had good test-retest reliability.

For the evaluation of the Romanian version of PCSQ's validity different procedures and methods (not all of a statistical nature) were used. Regarding the *face validity* of PCSQ, it was evaluated in the translation and pretesting process described in the introduction of this study. Items of the Romanian version of PCSQ were described as intelligible, clearly formulated and relevant for the measured construct as well as for respondents (i.e. their expectations, interests and needs) (see Kline, 2005). Feedback from parents in the focus group described above was integrated into the subsequent version of the items. No significant negative subjective experiences while completing the measure were reported by parents. Agreement for adaptation obtained from the authors of the original version of PCSQ (Morawska et al., 2015) consolidated the confidence of the present study's authors regarding the face validity of PCSQ's Romanian version.

Content and process validity of the Romanian version of PCSQ was established through the contribution of the experts in this research area participating to this study (Kline, 2005). This process was doubled by the fact that the English version of PCSQ went through a similar process of content validation which, despite the changes from the adaptation process for use in a different language and culture, nevertheless contributed to the validity of its Romanian version. Experts' opinion was that items described the intended constructs and that they offer comprehensive information on parental behavior and self-efficacy regarding communication with children on sexual topics and parental experiences and beliefs regarding this aspect. Ethical issues of the participation process were discussed (e.g., values and experiences of participants), confidentiality and anonymity of information, advantages and disadvantages of using an online/electronic format of the questionnaire, clarity and efficiency of the questionnaire instructions, length of time needed for completion of questionnaire. It was

concluded that the content and process validity of the Romanian version of PCSQ were adequate.

The *criterion validity* of PCSQ (Romanian version) was evaluated using a convergent assessment of PCSQ's predictive (concurrent) capacity. The *Parenting Self-Efficacy Scale* (Daario et al., 2001b) was used to measure the "criterion", that is parental self-efficacy about communication with children on sexual topics. Spearman r_s correlation coefficients between global scores on the two measures were statistically significant ($r_s = 0.592$, p < .001, 2-tailed), indicating a positive correlation.

PCSQ's *construct validity* for the Romanian version was established using internal structure of PCSQ items analyses. For various reasons, it was decided that an exploratory factor analysis was preferable. A principal component analysis was preceded by Keiser-Meyer-Olkin tests and Bartlett sphericity tests of sample size adequacy and they revealed that the study's sample was appropriate for such an analysis. Prior to the analyses, the Likert-type items of the PCSQ were organized into three subscales (described below) based on the components they evaluated. *Subscale1* (27 items) assesses parents' confidence (self-efficacy) and comfort expressed in relation to their knowledge and skills of communication with children on sexual topics. *Subscale2* (17 items) evaluates the frequency of communication-about-sexuality parenting behavior. *Subscale3* (28 items) measures parents' beliefs regarding sexuality education and various aspects of it.

Communalities for items of each of the three subscales were almost all having values higher than the critical value of 0.5. Extraction of a certain number of factors as a result of a principal component analysis was done using the so-called Kaiser criterion, which suggested keeping only the factors/components with an eigenvalue superior to 1 (Thompson, 2004). For *Subscale1 (Confidence and comfort)* that was a number of 6 factors explaining 70.030% of the items cumulated variance (factors explained 23.039%, 13.424%, 12.094%, 9.765%, 6.807% and respectively 4.901% of the variance of the 27 items). For *Subscale2 (Parenting behavior)* were extracted a number of 3 factors explaining 62.995% of the cumulated variance of items (factors explained 33.212%, 20.737% and 9.046% of the 17 items' variance). For *Subscale3 (Sexuality education)* were identified 6 factors fast explaining 71.584% of the cumulated variance of the subscale items (factors explained 18.513%, 13.742%, 13,317%, 9.139%, 9.132% and 7.741% of the 28 items' variance).

Checking the SPSS output tables detailing the rotated components for the items of each subscale of PCSQ and identifying factors for which the majority of items' factor loadings were higher than 0.5 (Tabachnick & Fidell, 2013), analyzing the scree plots for each subscale (e.g., Figure 3.4.1. for *Subscale1*) and using other recommended criteria (Antony & Barlow, 2011; Kline, 2005) regarding selection of relevant components, the following numbers of factors were proposed: 3 factors for *Subscale1*, 2 factors for *Subscale2* and 4 factors for *Subscale3* (see table 3.4.3.)





Shapiro-Wilks test results indicated a non-normal distribution of frequencies for each subscale scores.

Reliability and internal consistency analyses were carried out for the subscales of PCSQ as well.

Cronbach alpha coefficients of internal consistency had high values (between 0.916 - 0.930) for each of the subscales, indicating a strong internal consistency for the items of the subscales.

For assessment of test-retest reliability of the three subscales results (see Table 3.4.4 and Table 3.4.5.) of the Wilcoxon signed-rank test and of the correlation analysis (Spearman rho coefficient) indicated that there were no significant differences between paired scores from the test and retest phase for any of the three subscales, results confirmed by the value of Spearman's rho significant correlation coefficients (0.818 - 0.852, see Table 3.4.5.) between test and retest subscales scores.

	Con	nponents			Com	ponents	Compor				
Subscale1	1	2	3	Subscale2	1	2	Subscale3	1	2	3	4
Item 10	.849			Item 7	.841		Item 13	.899			
Item 8	.838			Item 4	.828		Item 21	.788			
Item 13	.798			Item 8	.806		Item 18	.763			
Item 7	.767			Item 2	.733		Item 19	.728			
Item 9	.758			Item 12	.679	.449	Item 11	.724			
Item 11	.690			Item 6	.632		Item 8	.537	.504		
Item 18	.615			Item 1	.626	.594	Item 17	.420			.419
Item 14	.606			Item 10	.612		Item 2		.793		
Item 20	.555			Item 5	.576		Item 3		.789		
Item 22	.503		.433	Item 14	.558		Item 1		.622		
Item 12	.456	.411		Item 13		.810	Item 7		.547		
Item 17		.817		Item 11		.757	Item 12	.447	.534		
Item 19		.782		Item 9	.465	.631	Item 10	.531	.533		
Item 21		.728		Item 15		.625	Item 25			.920	
Item 15	.486	.617		Item 3	.564	.613	Item 24			.854	
Item 16		.569	.415	Item 17			Item 26			.836	
Item 2			.784	Item 16	.442		Item 20			.507	
Item 24			.728				Item 23			.498	
Item 4			.644				Item 28			.432	.622
Item 25			.634				Item 27			.435	.617
Item 3							Item 15	.415			.596
Item 27							Item 16	.503			.532
Item 26	.414						Item 14				
							Item 22				
							Item 9		.432		

Table 3.4.3. Factor structure of PCSQ subscales

 Table 3.4.4. Wilcoxon signed-rank test statistics for Subscales 1 to 3 of PCSQ (test-retest)

		Ν	Mean Rank	Sum of Ranks
	Total	11		
Subscale1 retest – Subscale1 test	Negative Ranks	4	3.38	13.50
	Positive Ranks	7	7.50	52.50
	Ties	0		
	Total	11		
Subscale2 retest – Subscale2 test	Negative Ranks	2	2.50	5.00
	Positive Ranks	5	4.60	23.00
	Ties	4		
	Total	11		
Subscale3 retest – Subscale3 test	Negative Ranks	4	4.88	19.50
	Positive Ranks	4	4.13	16.50
	Ties	3		
	Total	11		

Table 3.4.5. Spearman rho correlation coefficients between test and retest scores of Subscales 1 to3 of PCSQ

Variable correlate	r _s	р								
Subscale1 test – Subscale1 retest	.818	.002								
Subscale2 test - Subscale2 retest	.852	.001								
Subscale3 test – Subscale3 retest	.846	.001								
	r = completion coefficient $r = level of cientificance (2 toiled)$									

 r_s = correlation coefficient; p = level of significance (2-tailed)

When evaluating *criterion validity* for PCSQ items organized on subscales significant values were obtained for each of the Spearman rho correlation coefficients between participants' scores on the PCSQ subscales and scores on the *Parenting Self-Efficacy Scale* (Daario et al., 2001b) (i.e., 0.555, 0.464, respectively 0.347, p < .001). Also, Spearman rho correlation coefficients between scores on each PCSQ subscale and PCSQ global scores were statistically significant (0.940, 0.835, respectively 0.495, p < .001).

Besides the Likert-type items PCSQ also has 4 multiple choice and 3 open-ended response items. Below (see Table 3.4.6) are the descriptive statistics of participants' responses to the multiple-choice items of PCSQ (Romanian version).

Table 3.4.6. PCSQ mu	Itiple-choice-item	response free	Juencies

		IT	EM	
	1. When you were a child, what was your main source of information about sexuality?	2. What is your main source of information about sexuality now?	3. Where do you get information about children's developing sexuality from?	4. Where do you feel your children get their information about sexuality from?
Multiple choice options	N (%)	N (%)	N (%)	N (%)
Parent(s)	44 (29.9%)	Response option unavailable	Response option unavailable	99 (67.3%)
Friend(s) (or other parent- in items 2 & 3)	104 (70.7%)	32 (21.8%)	38 (25.9%)	95 (64.6%)
Teacher or school staff	19 (12.9%)	7 (4.8%)	12 (8.2%)	30 (20.4%)
Health professional	11 (7.5%)	59 (40.1%)	59 (40.1%)	14 (9.5%)
Media	54 (36.7%)	39 (26.5%)	37 (25.2%)	50 (34.0%)
Internet	17 (11.6%)	119 (81%)	108 (73.5%)	75 (51.0%)
Brochures	49 (33.3%)	46 (31.3%)	49 (33.3%)	26 (17.7%)
Relative	23 (15.6%)	2 (1.4%)	4 (2.7%)	Response option unavailable
Partner	Response option unavailable	53 (36.1%)	33 (22.4%)	Response option unavailable

3.4.4. Discussion, limitations, conclusion

This research stage had the purpose of adapting and evaluating (in a pilot study) the psychometric properties of the Romanian version of the *Parenting and Child Sexuality Questionnaire* (PCSQ, Mariska et al., 2015). This was, as shown by available information, one of the first undertakings of this kind, that is, the adaptation for use in Romanian of a measure assessing parenting dimensions associated to sexuality education and communication with children. There were not many similar instruments to be found in the international literature (see Fisher et al., 2013) or in Romanian. No other empirically validated instruments measuring aspects related to sexuality education were available in Romanian irrespective of whom they were addressed to (parents, children, health professionals). PCSQ was selected for this process due to its complexity and its capacity to assess various aspects related to parental self-efficacy of communication with children on sexuality topics.

Internal consistency and test-retest reliability were assessed both for PCSQ and for its defined subscales and results indicated good or strong internal consistency for PCSQ's items and also a good test-retest reliability (assessed by two different methods). One aspect that could limit the extent of these results' generalizability is the fact that the size of the data sample analyzed for the test-retest reliability of PCSQ was a small one.

The Romanian version of the PCSQ has good criterion validity, values of Spearman rho correlation coefficient for global as well as subscales scores of PCSQ with scores on *Parenting Self-Efficacy Scale* (DiIorio et al., 2001b) were statistically significant, being situated in the interval recommended by literature, this indicating the PCSQ (Romanian version) had a good predictive capacity without being redundant (Kline, 2005). A limitation to the inferences that could be made based on these results is the fact that the instrument used to

evaluate the "criterion" in the criterion validity analysis was only translated into Romanian and semantically equivalated for the purpose of this study without priory going through any validation process.

Internal structure analyses of PCSQ items (in Romanian) were carried out on subscales scores. It was considered that item organization on the three subscales reflected best the conceptual aspects evaluated by each item: *Subscale1 – Confidence and comfort* (expressed by parents in their knowledge and skills of communication with children on sexuality topics), *Subscale2 – Parenting behavior* (frequency of sexuality communication parenting behavior), *Subscale3 – Sexuality education* (parents' beliefs about sexuality education and various aspects nod sources of it). Principal component analysis was performed on items in these subscales and not on the entire PCSQ because of diversity of its items and dimensions evaluated by them. Interpretation of the exploratory factor analyses results based on statistical and methodological prescriptions led to the selection of a number of 3, 2 and respectively 4 latent factors/components explaining the total variance of the items of PCSQ subscales. Conceptual/thematic definition of each of these components was proposed based on an interpretive non-statistical analysis.

Reservations expressed regarding aspects influencing power and accuracy of these factor analyses (such as sample size, data distribution) were all addressed during the analysis process and based on their statistical significance methodological decisions were made.

Considering the advantages of organizing PCSQ's items into the subscales described above evaluations of its reliability and validity were carried out on this configuration and results were positive as well.

A significant amount of information was obtained from Romanian-speaking parents' responses to the multiple-choice items of PCSQ, helping with a better understanding of the needs, beliefs and attitudes that parents have regarding their contribution to their children's sexual health and education. This data indicated that participant parents considerably preferred using the online medium to search for information about children's and young people's sexuality and on how to educate and communicate with them about it. This information could be later used as a means of increasing the effectiveness of parenting interventions when developing and implementing them.

Besides its contribution to the research field the present study also had a number of possible limitations (e.g., sample size, participants' sociodemographic characteristics, online data collection procedure limiting and biasing participant sample) of the inferences and generalizations that could be made based on its results. Future studies should be designed to address these issues.

Study 5 – Quasi-experimental exploratory study of the relations between factors associated to perception of couple relationship quality and of parent-child relationship quality relevant for parent-child communication on sexuality topics

3.5.1. Introduction

There is considerable literature on the subject of family and family dynamics and associated factors with relevance for children and young people's development and adjustment. A number of recent studies are focusing on exploring associations between perception and evaluation of couple relationship and of related factors and factors associated to parent-child relationship (Kouros et al., 2014; Khajehei, 2015; Zemp, Milek, Davies, & Bodenmann, 2016; Morrill, Hawrilenko, & Córdova, 2016). Quality of parent-child relationship was associated (especially in developmental psychology) with multiple factors indicating general well-being, level of adjustment and emotional and behavioral problems for children and adolescents (Ackard, Neumark-Sztainer, Story, & Perry, 2006; Stroud, Meyers, Wilson, & Durbin, 2015; van Eldik, Prinzie, Deković, & de Haan, 2017). Literature supports the hypothesis that this relation might not be only a unidirectional one but existing data indicate a possible bicausality.

Quality of couple relationship and its perception could influence a number of aspects of the parent-child relationship (Morrill, Hawrilenko, & Córdova, 2016) and vice versa (Zemp et al., 2016; Sears, Repetti, Reynolds, Robles, & Krull, 2016). Kouros and colleagues (2014) found a positive association between daily evaluations of the emotional quality of a parent's intimate/couple relationship and that of the parent-child relationship after controlling for relationship satisfaction and conflict and for parenting levels (Kouros et al., 2014). This *spillover effect* (Kouros et al., 2014; Sears et al., 2016; Stroud et al., 2015) could be bidirectional (Kouros et al., 2014; Sears et al., 2016). The *compensation hypothesis*, proposes that a compensation of negative aspects of the couple relationship might translate into a person investing parenting resources (time, attention, knowledge) and positive affect into their parent-child relationship (Nelson, O'Brien, Blank son, Calkins, & Keane, 2009). The two models should not necessarily be mutually exclusive (Kouros et al., 2014).

Studies (Khajehei, 2015; Sears et al., 2016; Zemp et al., 2016) also investigated the influence that the quality of parent-child relationship might have on the parent's couple relationship or the bidirectionality of these influences finding support for both hypotheses. Empirical evidence exists highlighting the (primary and

secondary) effect that some parenting interventions might have on children's behavior, on parent-child relationship and also on the couple relationship (Zemp et al., 2016). Also, it appears that mothers might be less vulnerable than fathers to the spillover effect from the couple relationship into the parent-child relationship (Khajehei, 2015).

Parents' concern over their communication with their children on sexuality topics is an aspect commonly addressed by parental programs and interventions (as a means or a goal) due to communication's intrinsic role in parent-child relationship (Widman et al., 2016; Wight & Fullerton, 2013).

Studies investigating parental *connectedness* (Vidourek et al., 2009) with its component, parent-child (sexual) communication, found it to be playing a protective role against certain sexual risk behavior in which young people might engage (Markham et al., 2010; De Looze, Constantine, Jerman, Vermeulen-Smit, & ter Bogt, 2015).

Communication on sexual topics between adolescents and parents predicted adolescents' sexual communication with their partners on similar topics and for the sexually active ones it predicted use of protection during sex (such as condoms) (Widman, Chukkas-Bradley, Helms, Golin, & Prinstein, 2014).

Studies show that although some parents express fear of the possibility that communication about sexuality might determine adolescents and young people to start their sex lives earlier or increase the chances of them engaging in particular sexual behavior, data generally does not support this association (Zamboni & Silver, 2009; Angara, Brookins-Fisher, & Inungu, 2008, De Looze et al., 2015; Widman et al., 2016) The majority of parents report they wish to communicate "openly" with their children on this subject (Kirkman, Rosenthal, & Feldman, 2005) although data indicates that many of the adolescents perceive their communication on various sexuality issues with their parents to be less than satisfactory (Angera, Brookins-Fisher, & Inungu, 2008).

Generally, mothers tend to communicate more (frequently and diversely) than fathers about sexuality and more with their daughters than with their sons (Sneed, Somoza, Jones, & Alfaro, 2013). Also, there is a similar discrepancy with regard to parent-child sexuality-communication-related outcomes (e.g., sexually protective behavior) in favor of girls/daughters (Widman et al., 2016).

Widman and colleagues (2016) suggest that besides other factors associated to the parent-child relationship, quality of the parent's couple relationship might interact with parent-child communication and with its effects on children and young people's sexual behavior (Widman et al., 2016).

Perceived self-efficacy and outcome expectancy (both in parents and in young people) about certain sexuality and sexuality education behavior and outcomes are good predictors for the level of sexually protective behavior in which young people engage and for their intentions in that sense (Dilorio et al., 2001a; Lehr, Demi, Dilorio, & Facteau, 2005; Dilorio, McCarty, & Denzmore, 2006).

Thus, the *objective of this study* was to explore how for parents in Romania participating to this study, the perception of their couple-relationship quality and of some factors associated to it (such as sexual communication anxiety and sexual perfectionism, see Study 1) was related to the perception of factors describing parenting dimensions relevant for the sexuality education of children and young people.

The following hypotheses were tested: 1) Sexual communication anxiety and sexual perfectionism are significant predictors (individually and together) for parents' self-efficacy, outcome expectancy and communication and parenting behavior regarding sexuality education; 2) Parents' self-efficacy and outcome expectancy about parent-child communication on sexual topics are predictors (separately and together) for the level of parenting behavior in this respect; 3) Parents' sexual perfectionism and sexual communication anxiety together with their self-efficacy and outcome expectancy regarding parent-child communication about sexuality predict the level of parental sexuality-communication-and-education behavior.

3.5.2. Method

Research design was non-experimental, correlational and predictive (with an exploratory component), with 5 variables: (1) sexual communication anxiety (SCA), (2) multidimensional sexual perfectionism (MSP), (3) parental self-efficacy about communicating with children about sexuality (SESC), (4) parental sexuality-education-and-communication behavior (SECB) and (5) parental outcome expectancy about communicating with children about sexuality (OECS).

Participants and procedure

Data were collected online from a convenience sample ("chain" selection, Clark-Carter, 2010) of N = 106 participants from various regions in Romania between April and June 2017. Participants were aged between 25 and 51 years (M = 37.83 years, SD = 5.99). A percentage of 92.5% of them were women; 76.4% of the participants were married, 16% divorced, 5.7% unmarried but in a relationship and 1.9% were single at that time. For participants in a relationship at that time (98.1%) mean duration of that relationship M = 13.48 years (SD = 7.07). Mean duration of participants' longest relationship was 13.64 years (SD = 6.94). Mean number of participants' sexual/romantic partners up to that time was M = 4.86 (SD = 5.11). 96.4% of participants had university degrees. A number of 46 (43.4%) participants were raising 1 child, 56 (52.8%) were raising 2

children and 4 participants (3.8%) were parents to 3 children. Mean age of the 170 children raised by participants was M = 8.34 years (SD = 5.54).

Selection was based on a single criterion: participants to be parents (legal guardians) of at least one child (younger than 18 years) at the moment of the study. Survey was completed anonymously online on the <u>www.esurveycreator.com</u> platform. General research ethics prescriptions were followed.

Instruments: (1) Multidimensional Sexual Perfectionism Questionnaire (MSPQ, Snell, Risdon, 1995, Snell, 1998) for MSP, (2) Sexual Communication Apprehension Items (SCAI, Babin, 2012) for SCA; (3) Parenting and Child Sexuality Questionnaire (PCSQ, Morawska et al., 2015) for SESC and SECB; (4) Parenting Outcome Expectancy Scale (POES, Dilorio et al., 2001b) for OECS. All measures were previously revealed by literature to have good psychometric qualities. Sociodemographic items were created for the purpose of this study.

Data analysis was performed with Statistical Package for the Social Sciences (SPSS 17.0) program. Normality of score-frequency-distribution tests, correlation analyses, simple and multiple (hierarchical) linear regression analyses.

3.5.3. Results

Table 3.5.1. shows significant Spearman rho correlation coefficients (p < .01, 2-tailed) of adequate values, describing the relation between global scores on OECS and PCSQ ($r_{est} = .628$, p < .01), on OECS and SCAI ($r_s = .564$, p < .01) and on PCSQ and SCAI ($r_s = .516$, p < .01). MSPQ global scores had no significant relation with global scores on other measures in the study although the Speraman rho correlation coefficient's value for MSPQ and SCAI global scores almost reached statistical significance (p = .06, 2 -tailed).

Results (Sperman rho coefficients) of correlation analyses on subscale scores of study measures can be seen in Table 3.5.1. Of particular interest are PCSQ subscales 1 and 2 which assess two different variables of the study: OECS scores significantly positively correlate with PCSQ1-SE scores ($r_{est} = .657$, p < .01) and with PCSQ2-B scores ($r_s = .478$, p < .01); SCAI global scores significantly negatively correlate with PCSQ1-SE scores ($r_s = .526$, p < .01) and with PCSQ2-B scores ($r_s = -.391$, p < .01) (see Table 3.5.1.).

Regarding sexual perfectionism and its dimensions' correlations with other variables of the study, the only significant ones were between scores on: MSPQ2-PS and PCSQ1-SE ($r_{est} = -.330$, p < .01); MSPQ3-DP and PCSQ1-SE ($r_s = -.215$, p < .05); MSPQ5-PSD and OECS ($r_s = -.245$, p < .05), MSPQ5-PSD and PCSQ1-SE ($r_s = -.392$, p < .01); MSPQ5-PSD and SCAI ($r_s = .301$, p < .01); MSPQ global scores and PCSQ1-SE ($r_s = -.300$, p < .01) (see Table 3.5.1.).

Simple linear regression analyses were carried out to test predictor quality of some study variables as posited by hypotheses 1 and 2.

Simple linear regression equations (df =1 and residual df = 104) indicated that the following significant predictors were found: 1) MSPQ5-PSD scores predicted PCSQ1-SE scores (F = 12.557, p < .01; R2 = .108) and SCAI global scores (F = 11.384, p < .01 R2 = .099); 2) SCAI global scores predicted PCSQ1-SE scores (F = 39.982, p < .01, R2 = .278), PCSQ2-B scores (F = 22.244, p < .01, R2 = .176) and POES scores (F = 47.265, p < .01, R2 = .312); 3) POES scores predicted PCSQ1-SE scores (F = 81.050, p < .01, R2 = .438) and PCSQ2-B scores (F = 32.401, p < .01, R2 = .238) and 4) PCSQ1-SE scores predicted PCSQ2-B scores (F = 74.308, p < .01, R2 = .417) and POES global scores (F = 81.050, p < .01, R2 = .438) (Clark-Carter, 2010).

Simple linear regression analyses were followed (when the case) by multiple linear regression. For all regression models proposed data satisfactorily verified all the assumptions of a multiple regression analysis (Clark-Carter, 2010; Dabchick & Fidell, 2012, Howitt & Cramer, 2017).

The regression equation found for the "predictors SCA and MSP-PSD and criterion SESC" model was significant F(2,103) = 22.821, p < .000, with $R^2 = .307$. SESC predicted level was 220.912 - .658 (SCA) -1.280 (MSP-PSD), where 220.912 was the constant's regression coefficient's value. Only SCA predicted SESC significantly at a p < .01 level but, at a p < .05 both predictors were significant.

The regression equation found for the "predictors OECS and SESC and criterion SECB" model was significant F (2,103) = 37.782, p < .000, with R² = .423. SECB predicted level was -0.500 + .210 (SESC) + .151 (OECS), where -0.500 was the constant's regression coefficient's value. Only SESC was a significant predictor for SECB.

The regression equation found for the "predictors OECS and SCA and criterion SESC" model was significant F (2,103) = 46.381, p < .000, with R^2 = .474. SESC predicted level was 1.247 - .320 (SCA) + 2.062 (OECS), where 1.247 was the constant's regression coefficient's value. Both SCA and OECS were significant predictors for SESC.

The regression equation found for the "predictors SCA and SESC and criterion SECB" model was significant F (2,103) = 38.144, p < .000, cu R^2 = .426. SECB predicted level was 15.114 - .056 (SCA) + 0.215 (SESC), where 15.114 was the constant's regression coefficient's value. Only SESC was a significant predictor for SECB.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 POES total															
	~ **														
2 PCSQ1-SE	.657**														
	.000 .478 **	.654**													
3 PCSQ2-B	.478 .000	.054 .000													
	.273**	.000	.389**												
4 PCSQ3-E	.005	.003	.000												
	.628**	.925**	.848**	.498**											
5 PCSQ total	.000	.000	.000	.000											
	.072	080	.059	.154	019										
6 MSPQ1-SO	.462	.414	.545	.115	.849										
	149	330**	068	.060	217*	.517**									
7 MSPQ2-SP	.128	.001	.489	.540	.025	.000									
9 MCDO2 DD	106	215*	005	.138	117	.713**	.468**								
8 MSPQ3-PD	.280	.027	.958	.159	.231	.000	.000								
9 MSPQ4-PSO	013	234*	039	.156	120	.556**	.443**	.568**							
9 MSrQ4-rSO	.894	.016	.690	.109	.219	.000	.000	.000							
10 MSPQ5-PSD	245*	392**	119	.062	279**	.510**	.596**	.704**	.627**						
10 Mbi Q5 15D	.011	.000	.225	.528	.004	.000	.000	.000	.000						
11 MSPQ total	103	300**	013	.162	170	.793**	.716**	.852**	.775**	.854**					
	.291	.002	.896	.098	.081	.000	.000	.000	.000	.000					
12 SCAI1-G	547**			277**		.029	.180	.146	.059	.283**	.174				
	.000	.000	.000	.004	.000	.769	.065	.135	.550	.003	.074				
13 SCAI2-SS			287**	219*		.091	.187	.196*	.141	.341**	.230*	.709**			
	.000	.000	.003	.024	.000	.352	.055	.045	.150	.000	.017	.000			
14 SCAI3-ND	536**		359**	231*	483**	058	.173	.089	.001	.249*	.112	.829**	.691**		
	.000	.000	.000	.017	.000	.553	.077	.367	.996	.010	.252	.000	.000	0.0**	
15 SCAI total			391**			.024	.182	.154	.065	.301**	.183	.983**	.797 **	.869**	
	.000	.000	.000	.003	.000 < 0.01 (2	.810	.062	.116	.507	.002	.060	.000	.000	.000	

	Table 3.5.1. Spearman	bivariate	correlati	on coe	fficient	s for stu	ıdy va	riables	(and di	mension	is) and	l signif	icance l	evel
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** = level of significance p < 0.01 (2-tailed); * = level of significance p < 0.05 (2-tailed)

Note: PCSQ subscales: PCSQ1-SE = Confidence and Comfort; PCSQ2-B = Parenting Behavior;

PCSQ3-E = Sexuality Education

MSPQ subscales: MSPQ1-SO = Self-oriented sexual perf.; MSPQ2-SP = Socially prescribed sexual perf.;

MSPQ3-PD = Partner-directed sexual perf.; MSPQ4-PSO = Partner's self-oriented sexual perf.;

MSPQ5-PSD = Partner's self-respondent)-directed sexual perf.

SCAI subscales: SCAI1-G = General sexual communication anxiety;

SCAI2-SS = Safer sex communication anxiety;

SCAI3-ND = Negative disclosure anxiety

A two-step hierarchical regression analysis was carried out to test the 3rd hypothesis of this study. One of the distal predictors (i.e., MSP) for the SECB criterion was excluded from the analysis due to the fact that previous analyses revealed that it was not a good predictor for the dependent variable of the model. As such, the first predictor block included only SCA as an independent variable while the second regression predictor block contained SESC and OECS (see Fig. 3.5.1.). Tests of the model data revealed that it met the assumptions of a multiple regression analysis.

Figure 3.5.1. Hierarchical multiple regression model (Hypothesis 3 of study)

Predictor block 1	Predictor block 2	Þ	Criterion
SCA	OECS + SESC		SECB

 Table 3.5.2. Parameters of hierarchical regression models (model 1 and model 2)

		Model parameters Change parameter							
Regression model	R	\mathbb{R}^2	R ² adjust.	F	р	R ² Change	F Change	pFch .000 .000	
1	.420ª	.176	.168	22.244	.000ª	.176	22.244	.000	
2	.654 ^b	.428	.411	25.465	.000 ^b	.252	22.481	.000	

 $R = correlation coeff.; R^2 = determination coeff.; R^2 adjust. = adjusted determination coeff.; F = global significance of predictor; p = level of significance; a. Predictors: (Constant), SCA; b. Predictors: (Constant), SCA, OECS, SESC$

c. Criterion: SECB

The linear hierarchical (2-step) regression analysis returned significant (p < .001) regression equations for both models (steps): *model1* (only predictor block 1) and *model 2* (predictor blocks 1 and 2) (see Table 3.5.2.).

For *model*, the regression equation was F (1,104) = 22.244, p < .000, with R² = .176. The level of predicted SECB was 59.470 - .215 (SCA), where 59.470 was the constant's regression coefficient value. For *model 2*, the regression equation was F (2,102) = 25.465, p < .000, with R² = .428. The level of predicted SECB was 7.573 - .045 (SCA) + .104 (OECS) + .201 (SESC), where 7.573 was the constant's regression coefficient value (see Table 3.5.3.). Both models contributed significantly (F value is significant, p < .000) to the capacity of predicting the criterion in comparison to models with estimated population parameters (Field, 2013).

Both models also explained a significant variance at the criterion level (see Table 3.5.2.). *Model 1* indicated that SCA significantly (p < .000) predicted the criterion SECB, i.e. 17.6% of its variance. *Model 2* indicated that together the three predictors (SCA, OECS and SESC) significantly (p < .000) predicted the criterion SECB, i.e. 42.8% of its variance. Thus, adding the two predictors (in block 2) to the hierarchical regression brought a significant (p < .000) improvement of the prediction model ($R^2_{change} = .252$) of SECB. Adding OECS and SESC as predictors increased the percentage of criterion-variance prediction with 25.2% (Field, 2013).

Values of the adjusted coefficient of determination (R^2 adjust.) for both models of the hierarchical regression analysis were very similar to those of the coefficient of determination R^2 (see Table 3.5.2.), which indicates that if they were to be derived from the population and not from the study sample the two models of the hierarchical regression would explain approximately similar levels of the criterion variance. It could be thus said that the two models have a high generalizability level (Field, 2013).

Table 3.5.3. indicated that when SCA was the only independent variable in the model it was a significant predictor for SECB (t = -4.716, p < .000) but once the other two predictors (OECS and SESC) were introduced in the regression analysis SCA did not remain significant as a predictor of SECB (t = -.950, p = .344). Also, OECS proved not to be a significant predictor for SECB when considered together with the other two predictors (t = .698, p = .487). In this model (i.e., 2) the only predictor that remained significant for the criterion variance was SESC (t = 5.328, p < .000). Thus, although the three predictors separately had a significant direct influence on the criterion (as shown by the results of simple regression analyses) when their interaction was taken into consideration (controlling for levels of any two of them) the only one retaining a significant direct influence on SECB in this model was SESC. SCA and OECS lost their influence in this model as direct predictors of SECB and only showed an indirect influence (Field, 2013).

Regression model		Unstandard. Coeff.		Standard. Coeff.				nfidence al for B	Correlations		
		В	SE	β	- t p		Lower limit	Upper limit	Zero- order	Partial	Semi- partial
	(Constant)	59.470	2.655		22.399	.000	54.205	64.735			
1	SCAI total	215	.046	420	-4.716	.000	305	124	420	420	420
	(Constant)	7.573	12.881	· · · · ·	.588	.558	-17.976	33.123			
	SCAI total	045	.048	089	950	.344	140	.049	420	094	071
2	POES total	.104	.149	.074	.698	.487	192	.400	.487	.069	.052
	PCSQ1-SE	.201	.038	.550	5.328	.000	.126	.276	.646	.467	.399

Table 3.5.3. Hierarchical regression coefficients (hypothesis 3 of the study)

B= regression coefficient/slope value; SE = coeff. standard error; β = standardized coeff. value;

t = significance of coeff. test statistic; p = probability significance level

Figure 3.5.2. Mediation model of the relation between predictors SCA, OECS and criterion SECB by predictor SESC



Based on these results a mediation model was proposed with SESC mediating the relation/path between predictors SCA and OECS with SECB. Figure 3.5.2. describes this model. The validity of this model needs further testing in future studies.

Information offered by parents in Romania participating to the study based on their answers to the sociodemographic data questionnaire revealed that a percentage of 94.3% (N = 100) did not consider their children to had ever been in a sexual risk situation although N = 33 of them were able to describe what in their opinion could constitute such a situation (e.g., exposure to online pornography, unprotected sex or being approached for sex by strangers, adults or older children/young people). Participants' self-rated level of religiosity was not a good predictor for any of the variables of the study. Number of sexual partners that participants estimated they had by that time (M = 4.86, SD = 5.109) proved to be a moderate predictor for their level of self-efficacy regarding communication with children on sexuality topics and for their level of sexuality education parenting behavior.

3.5.4. Discussion, limitations, conclusion

Results of this study indicated that its hypotheses were confirmed almost in their entirety. The only exception to it was constituted by the fact that multidimensional sexual perfectionism was not a significant predictor for the other variables of the study only some of its dimensions verifying hypothesis 1 of the study and none of them hypothesis 3.

Support was found for the fact that participants' level of sexual communication (with partner) anxiety predicted their level of parental outcome expectancy and self-efficacy regrading communication with children about sexuality and for the level of communication-with-children-about-sexuality behavior they engaged in.

Of sexual perfectionism's dimensions, partner's self-directed (towards respondent) sexual perfectionism was found to be a significant predictor for respondents' level of sexual communication anxiety and for their level of parental self-efficacy about discussing sexuality. Moreover, this dimension of sexual perfectionism proved to be significantly correlated with the majority of the study's variables and their dimensions, with the exception of parental communication-about-sexuality-and-sexuality-education behavior. As a result of that, sexual perfectionism was replaced by this dimension (MSP-PSD) of it throughout the following analyses of the study.

Results confirmed that sexual communication anxiety and partner's self-directed sexual perfectionism together predicted significantly the level of parental self-efficacy of communication with children about sexuality, sexual communication anxiety being a mediator in their relation. Other multiple prediction models were not tested due to the fact that partner's self-directed sexual perfectionism was not a significant predictor for the other variables.

No prior results on this subject (hypothesis 1) were found in literature and thus a comparison could not be made but theoretical models and other connected results encouraged such a hypothesis being formulated and the attempt made in this direction by this study indicated promising results.

Regarding the second hypothesis of the study analyses revealed that parental self-efficacy and outcome expectancy about communicating with children on topics of sexuality were significant predictors (both separately and together) for the parental level of communication about sexuality and sexual education with the children. Parents' communication self-efficacy appeared to mediate the relation of the other two variables. Both self-efficacy and outcome expectancy were good predictors for each other. When taking into account their interaction only self-efficacy about communicating with children on sexuality topics remained significant in predicting the level of communication behavior between parents and children about sexuality.

This study's results (hypothesis 2) on the one hand confirmed predictions of A. Bandura's theory of selfefficacy regarding the role that self-efficacy and outcome expectancy played in predicting performance and intention to perform certain behavior. On the other hand, they partially contradicted Bandura's view of these processes alongside other results (Williams, 2010) offering valuable insights about the possibility of a bicausal relation existing between parental self-efficacy and outcome expectancy about communication with children on sexuality topics.

The 3rd hypothesis of the study tested a two-step multiple prediction model for the level of parental communication-with-children-about-sexuality behavior. Sexual communication anxiety was a predictor in the first block of predictors and parental outcome expectancy and self-efficacy regarding communication with children about sexuality were in the second prediction block. Results of model testing pointed out that only parental self-efficacy about communication with children on sexuality topics remained a significant predictor for their levels of parenting behavior in that respect. The other two predictors had only an indirect effect over these communication-with-children-about-sexuality parenting behaviors. A path model describing these relations was built.

These findings are among the very few results proposing a model that describes the relations between these variables (i.e. characterizing parents' perceptions of their couple relationship and of their parental relationship and parenting aspects) with an explanatory value for the variance in levels of parents' communication-with-children-about-sexuality behavior and with implications both at a theoretical and a practical level.

There are also possible limitations to the conclusions to be drawn from the results of this study. Among them might be the characteristics of the study sample (e.g., mostly women, mostly married or in a long-term relationship, mostly holding a university degree), others relating to the study procedure and the assessment instruments (e.g., access restricted to online participation, instruments translated but not validated) and others relating to data sample.

Study 6 – Study of initial phases of the development of a parenting program for children's and young people's sexuality education (PPCSE)

3.6.1. Introduction

The final stage of this doctoral research project consisted of the development of a sexuality education parental program aimed at improving communication between parents and children about sexuality (PPCSE).

To reach this end a number of stages of intervention development were covered, based on the *Intervention Mapping* (IM) model (Bartholomew, Parcel, & Kok, 1998). In the international literature, this model (process) was successfully used to develop various health promotion interventions and programs (Bartholomew et al., 2006; Dalum, Schaalma, & Kok, 2011) and even for parenting programs dedicated to sexual health (or associated factors) improvement in children and young people (Newby, Bayley, & Wallace, 2011; Schaafsma, Stoffelen, Kok, & Curfs, 2013).

Some of the previous stages of this doctoral research program constituted fundamental processes of the sexuality education program developed here as they were described by Bartholomew and colleagues in various studies (Bartholomew, Parcel, & Kok, 1998; Bartholomew, Parcel, Kok, & Gottlieb, 2006).

IM described *six steps* needed to develop an intervention, each of them based on the previous ones and their results. As a result of going through these steps an intervention "map" is obtained consisting of plans and matrices detailing the design, implementation and evaluation of the program (Bartholomew, Parcel, & Kook, 1998). The six steps of the IM process are (Bartholomew et al., 2006): (1) problem or needs analysis; (2) creating matrices of program objectives; (3) selecting theory-based intervention methods and strategies; (4) program design and organization; (5) proposing program implementation plan; (6) proposing program evaluation plan.

Among the central processes (components) that IM supposes authors (Bartholomew, Parcel, & Kok, 1998; Bartholomew et al., 2006) mention: (1) literature search of empirical results and evaluation of their validity, (2) accessing and using literature and theory to facilitate finding solutions for problems generated by creating a program plan, (3) collecting and using new information form the target population, responding to the need for new research to close the gap in the knowledge necessary for developing and implementing a program.

IM proposes a social-ecological approach (Bartholomew et al., 2006) of stages and dimensions of developing a sexuality education program, approach that is congruous with the theoretical background of this doctoral research project, i.e. the *Social-Cognitive-Ecological Model* of sexual development and health based on the social-cognitive-ecological model proposed by Dubos, Huesmann & Boxer (2009).

Newby, Bayley & Wallace (2011) described using IM in developing a program with a similar purpose (increasing the quality and quantity of parent-child communication on sexuality and relationship topics) in the Coventry area, UK. Their study was used here as a model for the development of such an intervention which

integrates existing theoretical approaches and empirical data available with the characteristics of the context and population it is addressed to (Newby, Bayley & Wallace, 2011).

The assessment of the need for developing such a program in Romania was discussed elsewhere in this thesis (see Chapters 1 & 3). There is limited but convincing data about sexual risk behavior, lack of protection at first sex and later in sexual life, lack of sexuality education and late age at receiving first notions of it, lack of school and family involvement in sexuality education of young people (Abraham et al., 2013; Rada, 2014).

3.6.2. Method

As part of the IM process the *component of searching valid empirical results in literature* was constituted by the literature analysis on the subject of family contribution to sexuality education and achievement of sexual health in young people (see Chapter 1) and by the systematic analysis (see Chapter 3) of studies assessing the effectiveness of sexuality education programs with a parental component. Literature search returned a number of prior systematic and meta-analyses with very diverse results on the same topic (Akers, Holland, & Boost, 2011; Downing et al., 2011; Cardoza et al., 2012; Wight & Fullerton, 2013; Lee, Cintron, & Kocher, 2014; Sutton et al., 2014; Manlove, Fish, & Moore, 2015; Santa Maria et al., 2015; Widman et al., 2016).

These attempts at identifying those components contributing categorically to the effectiveness of such programs (which were dedicated to different specific populations or goals) have not succeeded at producing unequivocal answers, sometimes yielding even contradictory ones. Although none of the components of such a program (or intervention) can be attributed the exclusive role of determining the effectiveness level of the program, common characteristics of successful programs were searched for.

Some of the analyses mentioned above (Akers, Holland, & Bost, 2011; Wight & Fullerton, 2013; Sutton et al., 2014; Santa Maria et al., 2015; Widman et al., 2016) found that improving parent-child communication on sexuality topics, as a means or an objective, could play a predicting role for other sexual-health-related outcomes at an attitudinal or behavioral level in young people while other studies (Downing et al., 2011) could not find such an effect of parent-child communication on sexuality topics.

The accessing and using existing theoretical models, the generating new studies to bridge the knowledge gap as well as the collecting and using new information about the target population components were carried out through the previous studies in this doctoral research project.

3.6.3. Results

Each of the IM steps were covered with the following results:

Needs analysis

Repeated searches for statistical data regarding sexual health of young people in Romania, the level of involvement various (responsible) educational agents in the sexuality education of young people in Romania, family and parental contribution (and communication) to their children's sexual health and education. Reports from international agencies and literature studies were collected and data regarding sexual health of children and young people in Romania were extracted. No sexuality education programs for parents in Romania were identified. A study assessing needs, attitudes and beliefs of Romanian-speaking parents regarding sexuality education of children and young people was carried out as part of this project.

As a result, a significant need for such a program to be developed for Romanian-speaking parents was identified. For a number of reasons (detailed in the thesis) it was established that the program should be addressed to parents of young people aged 10 to 14 years.

During this stage, based on its results and using literature suggestions (Newby, Bayley & Wallace, 2011), predictors were identified and possible determinants were proposed for the level of parental behavior of communicating with children about sexuality. The following determinant were proposed: *level of discomfort (anxiety) to communicate about sexuality* with one's partner (and with one's child); *level of parents perceived self-efficacy* regarding communication with children about sexuality; and *parental attitudes, knowledge and skills* regarding children's sexuality and communicating with them about it.

Generating the general objective and specific change objectives of the intervention

Once the possible determinants for the level of communication behaviors between parents and children on the subject of sexuality were proposed, the general objective of the program was broken down into 6 specific change objectives considered to be prerequisites for performing and maintaining the targeted communication behaviors: Parents are correctly informed about the role and outcomes of sexuality education for children; Parents access and use sexual-development-and-health-information (re)sources; Parents understand the role of communication with children about sexuality; Parents identify discussion opportunities and initiate conversations with children about sexuality and parents answer children's questions about sexuality; Parents talk to their partner (if they have a partner) about sexuality; Parents ask for help and offer support to other parents. The program objective matrix was formed with the six specific objectives being detailed into sub-objectives as a function of each of the four proposed determinants for the parent-child communication-about-sexuality behavior.

Selecting methods and practical strategies of intervention based on theory and empirical data

The strategies and methods proposed for use were selected based on the theoretical models and empirical data supporting their effectiveness. Methods and techniques of intervention mainly based on the social-cognitive model (Bandura, 1986) of change were selected depending on the determinants, to produce expected change at each specific objective's level. The taxonomy of behavior (and intention to perform behavior) change techniques used in interventions (Abraham & Michie, 2008; Michie et al., 2013) and the program model proposed by Newby, Bayley & Wallace (2011) were consulted for this purpose. Various methods (such as modelling and demonstration of behavior; providing rewards, instructions and performance feedback; prompting attention to previous success, self-monitoring of behavior and intention formation; goal setting; participant problem solving; coping response planning; providing reinforcement; general communication skills training) were selected. Success of these methods and techniques is also dependent on the implementation conditions of the program. Certain conditions increase the chances of success for particular methods (Kok et al., 2014).

Proposing program/intervention structure and content

The structure was proposed for the program as to allow for reaching each of the six specific change objectives in a series of 6 weekly 90-to-120-minute group (6-8 participants) led by a trained facilitator (ideally, a parent of a 10 to 14-year-old as well). Each session was conceived as to help reach one of the six performance objectives and its specific sub-objectives. At the beginning and the end of the program parents would be evaluated with measures assessing levels of proposed determinants and level of targeted behavior. Program content was selected to reflect the methods and strategies and to be compatible with participants' (socio-cultural) characteristics and needs (as reflected by previous studies results in this project).

Pre-testing of PPCSE's structure – parent focus-group

An important step in developing the program, once its structure, content and activities were proposed was pre-testing it in a pilot study. This step was carried out between June and July 2017 with the help of a *focus-group* of 6 parents (4 by the end of program, all women). Facilitator was the author of the doctoral thesis. Feedback from parents was requested and obtained regarding the program's content and activities and the subjective feelings of participants at every session. Parents' suggestions and observations were taken into account and incorporated into the final version of its activities and content. Based on the pre- and post-evaluation of participant parents within-subject score comparisons were made and positive changes (of various magnitudes) were observed regarding both levels of proposed determinates as well as levels of the targeted behavior of parent-child communication about sexuality. The significance level of these changes' magnitude was not evaluated but results were encouraging regarding its effectiveness. Post-program perception of the effectiveness and usefulness of the program expressed by participants was positive on the part of each of the 4 of them who completed it.

Implementation and evaluation of the program

Plans for implementing and evaluating the program were drawn up. The program implementation plan identified and discussed solutions to the perceived barriers and threats to its feasibility. Conversations with stakeholders and information from literature were used. A particular focus was on participant involvement and retention, program management, facilitators' training and information resources available in Romanian.

For program evaluation an experimental design, two-condition randomized controlled study was proposed. Program outcome evaluation should be done using a pre- and post-intervention assessment of the variables' levels (proposed determinants and communication behavior) and a follow-up at 6 months after intervention.

These plans could be improved on implementation and evaluation of the program in future studies.

3.6.4. Discussion, limitations, conclusion

This study consisted of the steps guided by IM (*Intervention Mapping*, Bartholomew, Parcel, & Kok, 1998; Bartholomew et al., 2006) and carried out in order to develop the PPCSE with the purpose of improving parents' level of communication with their children (10-14 years old) about sexuality and sexual health. The IM approach proposes theory-and-empirical-data-based programs which are tailored based on the specific needs and characteristics of the population they are addressed to.

PPCSE was intended to reach this objective through modifying the level of some factors associated in literature and in the studies of this project with parents' communication-with-children-about-sexuality behavior. This factors were identified by this study as possible determinants of the level of parents' communication-with-children-about-sexuality behavior: *level of discomfort (anxiety) to communicate about sexuality* with one's partner (and with one's child); *level of parents' perceived self-efficacy* regarding communication with children about sexuality; *level of parents' outcome expectancy* regrading communication with children about sexuality;
and *parental attitudes, knowledge and skills* regarding children's sexuality and communicating with them about it.

As part of this study only a pre-testing of the PPCSE was carried out with the help of a focus-group of parents who also contributed to its final version offering feedback on its activities, content, structure and process.

A future line of research could propose studies implementing and evaluating this program on very diverse samples of 10 to 14-year-olds' parents. Also, the program content could be adapted to suit parents of children in other age-groups and subsequently implemented and evaluated.

A possible limitation to the results of this study could be the fact that the program was only pre-tested and this was done with the help of a small number of participants having very similar sociodemographic characteristics. Also, the effectiveness of the program at pilot testing was not evaluated with statistical procedures.

As a consequence, although the program is a promising one the level of generalizability of its effects at a population level is very limited. Nevertheless, this study constitutes a first step in the direction of developing an effective PPCSE program for Romanian-speaking parents, which appears (based on available information) to be the first of its kind (developed using IM) available for parents in Romania.

Theoretical and practical implications of this study are manifold. It could contribute to the clarification of relations between psychological factors of interest for this program and its results could potentially be used in educational and preventive interventions or in family counselling practice.

Chapter IV. DISCUSSION AND GENERAL CONCLUSION

4.1. Theoretical contribution and implications

This doctoral research project investigated (at an individual level in a sample of Romanian-speaking parents) the relation between factors associated with perception of the quality of couple relationship and factors associated with perception of the quality of parent-child relationship and of parent-child communication about sexuality, in the context of the contribution of these factors and their interactions to the sexual health and sexuality education of children and young people from families in Romania.

Factors (and their relations) previously associated in literature (Heiman et al., 2011, Babin, 2012, Stoeber et al., 2013, Widman et al., 2016, Bersamin et al., De Graaf et al. 2011) with subjective evaluations of couple and parent-child relationship were investigated, and possible relations between factors unrelated priorly in empirical studies have been explored.

Various theoretical models and empirical studies support the hypothesis that the quality of parents' couple relationship and individual factors associated to it can influence (predict or be related to) certain factors (attitudes, behaviors, subjective evaluations) associated with the quality of the parent-child relationship and certain factors associated with the development and health of the children (Kouros et al., 2014, Khajehei, 2015, Zemp et al., 2016, Morrill, Hawrilenko, & Córdova, 2016; Stroud et al., 2015; van Eldik et al., 2017).

From the many theoretical approaches (e.g., Bowlby, 1969; Bandura, 1989; Bronfenbrenner & Morris, 2006), which have been used in literature to conceptualize and propose explanatory models for children's and young people's developmental context influences (either proximal or distal) on developmental processes and outcomes, and of specific interest for this research project, on the level of competencies (knowledge, capabilities and behaviors) for sexuality and sexual health of young people, this research project has adopted a *biopsychosocial* approach on sexual development and health (Lehmiller, 2014), proposing a *Social-Cognitive-Ecological Model* to investigate the influences expressed at the proximal developmental environment level, in the ecological microsystem constituted by the family. As described by its proponents (Dubow, Huesmann, & Boxer, 2009) this model, unlike others, offers the advantage of taking into consideration a greater variety of processes and influences that could contribute to an individual's development.

The present research project examined the relations between psychological factors that characterize adult parents in Romania, factors and relations that could have explanatory significance for parents' behaviors of sexuality education and parent-child communication about sexuality. The investigated factors describe the perception of individual dimensions associated with a couple's intimate relationship (couple satisfaction, sexual satisfaction, sexual communication anxiety with partner, sexual perfectionism, multidimensional perfectionism) or sexuality-related parenting aspects (parental self-efficacy about parent-child communication about sexuality, parental outcome expectancy about parent-child communication and sexuality education behaviors, parental beliefs and attitudes regarding sexuality education).

Results confirmed the majority of Study 1's hypotheses, with the exception of those referring to the two types of perfectionism, neither of them proving to be a significant predictor for any of the other three variables

of the study. Correlations between global scores on (multidimensional) perfectionism or (multidimensional) sexual perfectionism with any of the global scores on couple satisfaction, sexual satisfaction or sexual communication anxiety did not reach statistical significance. However, for some dimensions of perfectionism and of sexual perfectionism, significant correlations with some of the variables were found, suggesting that the hypotheses of this study could be confirmed if these two variables were to be replaced by these dimensions. This study found a significant positive correlation between perfectionism and sexual perfectionism, a result identified as the first of its kind in the literature, in the absence of other previous studies investigating the relation between the level of general perfectionism and the level of sexual perfectionism of an individual.

Results obtained regarding the relation between couple satisfaction and sexual satisfaction and their association with sexual communication anxiety reflect some of the first attempts in literature to include these three variables in a model. All bivariate correlations between the three variables have been statistically significant, sexual communication anxiety being inversely correlated with each of the two types of satisfaction. A significant path model with sexual satisfaction as mediator of the relation between sexual communication anxiety and couple satisfaction was tested.

Some results of study 1 also confirmed previous results from literature (Sprecher & Cate, 2004) regarding gender and relational/marital status differences in levels of sexual satisfaction or sexual communication (with one's partner) anxiety.

The systematic analysis carried out in Study 2 of this project revealed a great diversity in the 17 sexual education programs/interventions with parental components evaluated. Despite this diversity, most programs (except one) were assessed as having significant results at least on one dimension (behavioral or otherwise) targeted by the program at young people's level. Common elements have been identified in several programs, but it cannot be concluded that any of them (alone) could explain the level of effectiveness of a program: common goals (e.g., HIV/AIDS and associated-risk behavior prevention), similar target populations (adolescents), theoretical models preferred for program development (e.g., social-cognitive theory, theory of planned behavior, ecological systems theory) and participants and strategies or means of implementation (with the participation of a parent, with the participation of parents and children, with the help of schools or by electronic means, etc.).

Study 3 identified and analyzed certain dimensions characteristic for Romanian-speaking parents, with relevance for the sexual education and health of their children. Data were collected from a parenting discussion forum where Romanian-speaking parents discussed about parenting and sexual development and sexual health of children and young people. A procedure for qualitative data analysis, thematic analysis (Braun & Clarke, 2006) was applied. Thematic analysis of the data set obtained indicated general themes similar to the ones previously identified in the literature regarding discussions between parents concerning parenting (Appleton, Fowler & Brown, 2014; Dworkin, Connell & Doty, 2013). The specific themes identified in the analysis carried out in this study described the following major discussion patterns regarding adults' concerns, attitudes, beliefs, needs and practices related to the sexuality of children and young people: 1) significance of sexual education, 2) sexual development and sexual behavior of children and young people, and 3) parenting of sexually developing children and young people. Several themes and sub-themes that characterize the parents' contributions to these discussions were identified. The information provided by the results of this study were not previously available in the literature.

Study 4 consisted of the adaptation for Romanian use of a measure assessing Romanian-speaking parents' beliefs and confidence in their ability to communicate with their children about sexuality. Similar instruments available in Romanian could not be identified. Adaptation of such an instrument has both theoretical and practical implications. Results of the statistical analysis of data collected in the pilot study indicated that the Romanian version of the *Parenting and Child Sexuality Questionnaire* (Morawska et al., 2015) obtained as a result of this study had good psychometric properties. The questionnaires items had a strong internal consistency and a very good test-retest reliability. The face, content and process, criterion and construct validity of the questionnaire were determined by various procedures, some of a qualitative and others of a quantitative nature. Results indicated that the Romanian version of the *Parenting and Child Sexuality Questionnaire* is an appropriate tool in this respect.

An original contribution of Study 4 consisted in the organization of the Likert scale-type items of the Romanian version of the *Parenting and Child Sexuality Questionnaire* (Mariska et al., 2015) into three subscales (*Confidence and Comfort, Parenting Behavior; Sexuality Education*) that were subsequently subjected to statistical analyses that revealed they had adequate psychometric properties.

The objective of Study 5 of this doctoral thesis was to explore in a quasi-experimental manner the existence of predictors (and their associations) for the parent-child communication behavior about sexuality and sexual education that parents in Romania engaged in. Results revealed the existence of significant associations between sexual perfectionism and sexual communication (with one's partner) anxiety in Romanian parents with their levels of perceived self-efficacy and parental outcome expectancy regarding sexuality communication and

sexuality education they provided to their children, as well as with the level of communication with children about sexuality they engaged in. There were some exceptions concerning sexual perfectionism global scores which did not correlate with any of the other variables' scores although dimensions of sexual perfectionism did correlate significantly with them. A significant multiple prediction model for the level of parental communication with children about sexuality was tested. The path model predictors were: sexual communication (with one's partner) anxiety, parents' perceived self-efficacy to communicate with children on sexuality topics and parental outcome expectancy regarding communication with children about sexuality and the sexuality education they provide. This mediation model indicated that parental self-efficacy of parent-child communication (with one's partnet) outcome expectancy about parent-child communication about sexuality was a mediator for the relation between sexual communication about sexuality with parent-child communication about sexuality-and-sexual-education behavior.

Study 6 of this PhD thesis consisted of developing and pre-testing a parental education program dedicated to parents of children aged 10 to14 years in Romania, a program designed to improve the level of parent-child communication and sexual education behavior. This process was guided by the *Intervention Mapping* model (Bartholomew et al., 2006) for intervention development, integrating results of prior studies (1 to 5) of this as information and steps in the development of this program. Program structure's and activities' final form were realized with the help of a focus group of parents who were involved in pre-testing the program. Objective evaluations, feedback and subjective evaluations provided by these parents about the content and activities, structure and relevance (for parents) of this program were positive and recommend this program as a promising one.

Available information indicates that this program is a singular one in the landscape of sexuality education parenting programs for parents in Romania (with children of all ages, not only the target range of this program). Other programs based on empirically validated studies and theoretical models devoted to sexual-health-related dimensions and sexuality education of children in Romania could not be found.

4.2. Practical contribution and implications

The practical implications of this doctoral thesis are manifold because each of the six studies described above could contribute separately as well as together in this respect.

Results of Study 1 could be used in the development of programs that prevent couple dysfunctions or the practice of couple counselling as they provide information on certain associations of constructs and dimensions of the couple's relationship and of the sexual life of individuals in a couple.

Studies 3, 4, and 5 produced results that provide a wealth of information about parenting behaviors associated with the sexual development and health of children and adolescents in Romania, and about factors related to these parental behaviors, information previously unavailable in the literature and which could be used in family counselling practice to modify certain factors in order to prevent or reduce risk behaviors or increase quality of life in children (or adults).

Of particular importance is the practical utility of the measure adapted in this research project for use in Romanian, the *Parenting and Child Sexuality Questionnaire* (Mariska et al., 2015), an instrument that evaluates parenting dimensions related to sexuality education. This questionnaire could be used to conduct empirical studies, it could be used in family counselling practice and it could be used to provide information to help develop a program or as an evaluation measure within that program.

Part of this research project with an immediate and direct applicability is Study 6 and the program developed and pre-tested in this study. A further step in this direction would be testing and evaluating the program on a statistically significant sample and using an experimental design study to strengthen the findings of this study. Another step in the direction of increasing the practical utility of this program could be to adapt its content for use with parents of children in age groups other than the one for which it was originally developed. The program also has the advantage of being designed in a way that could also provide secondary benefits, i.e. it changes the level of certain behaviors or factors that could also improve the quality of their parents' couple relationship and well-being.

4.3. General conclusion

This doctoral thesis has the following main conclusions:

1. In Romanian-speaking participants, adults with intimate relational experience, multidimensional perfectionism positively correlates with multidimensional sexual perfectionism. Sexual communication (with one's partner) anxiety significantly inversely correlates with couple satisfaction and sexual satisfaction. Sexual satisfaction significantly positively correlates with couple satisfaction. The two types of perfectionism do not correlate significantly with any of the other three variables but for some of their dimensions significant correlations were found. Sexual satisfaction significantly mediates the relationship between sexual communication anxiety and couple satisfaction.

2. There are a considerable number of studies describing and evaluating the diversity of sexual education interventions and programs with parenting components. No studies or programs dedicated to Romanian-speaking populations could be identified. Most of the programs evaluated in the analyzed studies proved to be effective in the sense of modifying certain factors (attitudes, expectations, skills, behaviors) related to the sexual health of young people, but, precisely because of their diversity, no common success-ensuring components could be identified with certainty.

3. The major themes of parents' and potential parents' discourses (found online on a Romanian-speaking parenting forum) on issues related to the sexual development and sexual health of children and young people are as follows: the significance of sexuality education; sexual development and sexual behavior of children and young people; parenting of sexually developing children and young people. For these major themes a number of specific themes and sub-themes were identified, along with the general themes of parental discourse on parenting and children's health.

4. Adaptation (from English) of an instrument for Romanian use, evaluating parental self-efficacy to communicate with children about sexuality, parental level of sexuality-education-and-sexual-communication-with-children behavior, and parental attitudes regarding sexuality education, has provided a useful measure in Romanian with good psychometric properties.

5. For parents in Romania participating to the study, significant correlations were found between levels of sexual communication (with one's partner) anxiety, levels of parental outcome expectancy and of parental self-efficacy perceived about parent-child communication about sexuality and levels of parent-child communication-about-sexuality behavior. For parents' levels of parent-child communication-about-sexuality behavior the other variables were good predictors and together they formed a multiple prediction model. Parental self-efficacy perceived about parent-child communication about sexuality mediated the relation between sexual communication anxiety and parental outcome expectancy about parent-child communication about sexuality (as predictors) and level of parent-child communication-about-sexuality behavior (as criterion).

6. A theoretically and empirically-based parental education program dedicated to changing the level of communication behavior on sexuality between parents in Romania and their children aged 10-14 years was developed within this research project and was pre-tested with encouraging results.

4.4. Limitations and future study directions

This research project has a number of possible limitations. For each study described in this doctoral thesis these limitations were individually discussed in the dedicated section of each study.

Limitations mentioned here are more general and could be treated as further research directions in future studies. One of these limitations is related to the characteristics of the participant samples in these studies. Since all sampling procedures were of convenience, the representativeness of these samples for the general population is very low. Also, the preponderant use of the online medium and of the electronic means for data collection implicitly selected only those participants who were literate in this respect and had access to such mediums and means. Another aspect of these studies is that the majority of participants were women, although this is consistent with literature (Sprucer & Cate, 2004, Murray et al., 2014, Widman et al., 2016) showing that women are the ones who are willing to communicate more about sexuality both with their partner and with their children. The majority of the participants to this project's studies had university degrees, which may have some influence on the level of sexuality education behavior involving parents. Results in literature (Jerian & Constantine, 2010) however indicate that the general level of parental education is not a significant predictor for the level of sexuality education that parents provide to children (instead, the parental level of education and knowledge about sexuality is such a predictor).

An important limitation is related to the instruments used to evaluate the design variables in this project. Except for two of the measures that have been adapted for use in Romanian (one of which within this project), the other instruments have only been translated.

Nevertheless, this doctoral thesis enriches the literature on the role and contribution of parents to the sexuality education and sexual health of their children, providing both results that can help understand the relations between factors involved in these processes and clarify some theoretical models including these factors as well as empirical results and data addressing the lack of information about parents and children in Romania and their interactions relating to sexuality education and health.

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