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Causes of involuntary loneliness among adolescents and young adults: an integrative review

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ABSTRACT

Loneliness among adolescents and young adults is a multifaceted phenomenon. The aim of the study was to synthesize the existing knowledge on the different causes of involuntary loneliness among adolescents and young adults. The research question was: What underlies involuntary loneliness among adolescents and young adults? This article is based on a modified integrative literature review on the existing research and literature on the causes underlying involuntary loneliness among adolescents and young adults. Original, peer-reviewed papers in English published from 2010 to 2020 were sought. Four main themes and 7 subthemes emerged linked to causes of involuntary loneliness among adolescents and young adults. The four main themes were: Loneliness due to different dimensions of suffering, Loneliness due to personal barriers, Loneliness due to negative life experiences, Loneliness due to life transitions. The subthemes were: Physical suffering, Mental suffering; Personality traits, Inefficient coping strategies; Significant loss, Bullying/cyberbullying, Insecure family relationships.

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KEYWORDS

Adolescents; loneliness; involuntary loneliness; young adults

Introduction

Loneliness is a multifaceted phenomenon and can be described in many ways. For example, Weiss (1973) conceptualized loneliness as the experience of social and/or emotional loneliness. In Weiss' theory of loneliness, social loneliness can occur if a person feels he/she lacks a social network where he/she fits in and is accepted. Social loneliness may arise if the social roles a person has in society change or are disturbed, e.g. as a result of interrupted relationships, moving to a new place or recently becoming unemployed or retired. Weiss also posited that emotional loneliness was linked to a person's lack of a close, intimate bond with another, i.e. a partner. According to Weiss, emotional loneliness is the more severely painful type of loneliness because it entails that a person feels the absence of close, meaningful and more emotionally bound connections. Of note in Weiss' theory is the understanding that a person can experience emotional loneliness even if he/she has substantial social bonds and people around him/her (Weiss, 1973).

Other researchers have suggested other perspectives on loneliness. For example, that self-selected, intrapersonal or existential causes may underly the experience of loneliness (Strang, 2014) or that the experience of loneliness can be chronic and transitory (Shaked & Rokach, 2015) or depend on social, romantic or familial causes (DiTommaso & Spinner, 1993). Perlman and Peplau (1981) found that loneliness can be linked to negative emotions that arise from the discrepancy between desired and achieved levels of social interaction and that genetic predispositions can make

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a person more vulnerable to loneliness because certain personality traits and behaviours are significant to the ability to form and maintain relationships. Some researchers have found that loneliness is related to a person's fundamental need to belong and be accepted (Baumeister & Leary, 1995; Erikson, 1968; Rokach, 1989) or have posited theories on the importance of 'secure attachment' at the beginning of life (Bowlby, 1969). A lack of parental care might lead to ambivalent and avoidant attachment, which has been found to be common among young adults who experience loneliness later in life, especially first-year university students (Wiseman et al., 2006).

Viewed from a hermeneutical, Caring Science approach, loneliness can be defined as a complex phenomenon that may be experienced in many dimensions (Nilsson et al., 2006). In Caring Science, loneliness is described as a deep existential dimension that can be related to the human being's suffering. Suffering, in turn, derives from the inability to be 'the human being one is', which can hinder a person from participating in life in the manner he/she may wish to (Eriksson, 1994). The *theory of caritative caring* formed the theoretical perspective in this study (Eriksson, 2018; Lindström et al., 2018). In the theory of caritative caring, each human being is unique and should consequently be placed at the centre of care and treated with warmth, goodness and dignity (Eriksson, 2018). The fundamental motive of Caring Science is *caritas* (Eriksson, 2018), and within the *caritas motive* there is a spontaneous will to sacrifice and bear responsibility for the other in order to alleviate suffering (Eriksson, 2018). Caritative caring can help a human being find his/her potential and thus become him/herself (the person he/she is in his/her innermost core), which facilitates the experience of meaning and harmony, the gaining of a deeper understanding of life and a 'becoming' or a growth in health (Eriksson, 2018). Alleviating another human being's suffering entails conveying that one is nearby, continuously inviting the suffering human being into a caring encounter and providing time and space (Eriksson, 2018). Caring is considered a natural human behaviour that entails 'cleansing' and nourishing another human being with spontaneous and unconditional love, through which the power to alleviate suffering exists. Each human being desires and needs to be a part of a communion, which can be experienced in a caring communion that may facilitate the inner strength necessary for health (Lindström et al., 2018).

In the 21st century, the Internet and other digital solutions/applications have radically transformed how people interact with one another. Although people are increasingly digitally connected, the prevalence of loneliness appears to be rising (Cacioppo et al., 2015). Loneliness is acknowledged as a global public health problem (Fakoya et al., 2020) and found to be most prevalent during adolescence (Brennan, 1982; Rubenstein & Shaver, 1982; Tornstam et al., 2010). Despite being surrounded by different opportunities for networking and social interaction, many adolescents and young adults today perceive that they have no one to contact (Junttila, 2018). How adolescents and young adults approach social connections may impact whether they experience loneliness or not (Fardghassemi & Joffe, 2022). While older adults may focus on close family relationships to decrease their risk for emotional loneliness, young adults may focus on increasing social connections, during which they may neglect their emotional needs and thereby risk experiencing emotional loneliness (Fardghassemi & Joffe, 2022).

A variety of negative mental health outcomes are associated with loneliness during adolescence (World Health Organization, 2018), e.g. depression, aggression (Cacioppo et al., 2015) or suicidal thoughts (Lasgaard et al., 2011). Poor self-rated health is also prevalent among adolescents and young adults who experience loneliness, and risky health behaviours might be central to the association between loneliness and mental and physical health problems among this age group (Stickley et al., 2013). An association between low self-esteem and loneliness has also been seen (Sakiz et al., 2021). Even correlated with an external locus of control (Moore & Schultz, 1983), loneliness can be particularly destructive for adolescents and young adults because they may believe they do not have control over outcomes (personal agency) (cf., Tyler et al., 2020). First developed in 1957, *locus of control* can be defined as a person's beliefs about his/her ability to control events, i.e. the belief that outcomes are contingent upon own actions (Rotter, 1966). Those who feel personally responsible for outcomes are considered to have a more 'internalized' perspective while those who

believe that forces beyond their control (e.g. fate, other people, luck) impact outcomes are considered to have a more 'externalized' perspective (Rotter, 1966). Loneliness also correlates to the tendency to withdraw (De Jong-Gierveld, 1987; Peplau & Perlman, 1982). Adolescents and young adults who experience loneliness are more likely to view themselves as being passively affected by external phenomena and tend to negatively perceive their social surroundings and role in social relationships, which can lead to poor social skills and a general state of mind that may hinder social contact with others (Van Roekel et al., 2014).

Given the negative effects that loneliness has on adolescents' and young adults' health and well-being, it is important to recognize the complexity of loneliness as a phenomenon and further explore its nature and underlying causes. As an important step in mitigating the negative effects of loneliness, it is of clinical importance to identify the causes underlying loneliness among those predisposed to it. Particular consideration should be given to investigating loneliness among adolescents and young adults because greater understanding of the phenomenon may help reduce the public health burden of loneliness in later life.

Aim

The aim of the study was to synthesize the existing knowledge on the different causes of involuntary loneliness among adolescents and young adults. The research question was: What underlies involuntary loneliness among adolescents and young adults?

Method

Data collection

This article is based on a modified integrative literature review on the existing research and literature on the causes underlying involuntary loneliness among adolescents and young adults. To identify relevant studies, searches of the PsycInfo, MEDLINE and CINAHL databases were performed; these electronic databases are commonly used within the *caritative caring* theoretical perspective used in this study. An additional, secondary search of potentially relevant material was also conducted using the FINNA search portal. To focus the searches and create different keyword combinations, the Boolean operators 'OR' and 'AND' were used alongside the following keywords during the searches: *loneliness, lonely, alone, adolescents, teenagers, young adults, alleviate, strategy/strategies, reduce, help, cope, model, methods, techniques, intervention, decrease, minimize, prevent, professional, professional help, suffering*. See, Table 1 for an overview of the database search process.

The first author screened all citations, abstracts and full-text articles while the second and third authors ensured consistency regarding inclusion. Inclusion criteria were original, peer-reviewed papers in English published from 2010 to 2020 that contained results relevant to the causes underlying involuntary loneliness among adolescents and young adults. To prevent any possible impact on the research material, the decision was made to not include articles published after the start of the COVID-19 pandemic. The study sample consisted of adolescents and young adults aged between 13 to 29 years. This specific age range was chosen in accordance with World Health Organization (WHO) definitions, in which those aged 10–19 years are defined as adolescents, those aged 15–24 years are defined as youth, those aged 15–19 years are defined as teenagers and those aged 20–24 years are defined as young adults (World Health Organization, 2018). The decision was made to include a somewhat wider margin at the upper limit of the young adult age group to ensure that articles in which respondents reflected on their recent adolescence were not excluded. No specific respondent samples (e.g. young people with disabilities, mental illness, orphans, etc.) were excluded from the search. Exclusion criteria included unpublished manuscripts and expert opinion reports (Whittemore & Knafl, 2005).

Table 1. Overview of the database search process.

Database Date search performed	Keyword combinations	Number of matches
FINNA 13.10.2020	Loneliness AND Adolescents AND Alleviate AND Strategy AND Reduce AND Help AND Cope AND Model	169
CINAHL 10.11.2020	Loneliness AND Adolescents AND Alleviate AND Model	2
CINAHL 10.11.2020	Loneliness AND Adolescents AND Reduce AND Strategy	2
CINAHL 11.11.2020	Loneliness AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent	26
MEDLINE 20.11.2020	Loneliness AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent	59
MEDLINE 29.11.2020	Loneliness AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent	2
MEDLINE 29.11.2020	Loneliness AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent AND professional	0
MEDLINE 29.11.2020	Loneliness OR lonely AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent AND professional help	66
MEDLINE 29.11.2020	Loneliness OR social isolation AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent AND professional	16

(Continued)

Table 1. (Continued).

Database	Keyword combinations	Number of matches
MEDLINE 29.11.2020	Loneliness OR lonely AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent AND help	10
PsycInfo 29.11.2020	Loneliness OR Lonely OR Perceived Loneliness AND adolescents OR teenagers OR young adults AND strategy OR strategies OR methods OR techniques AND reduce OR decrease OR minimize OR prevent AND intervention	32
PsycInfo 10.12.2020	loneliness OR lonely AND adolescents OR teenagers OR young adults AND intervention AND alleviate	1
PsycInfo 10.12.2020	Loneliness OR social isolation AND adolescents OR teenagers OR young adults AND intervention AND alleviate	4
PsycInfo 10.12.2020	Loneliness OR lonely OR alone AND adolescents OR teenagers OR young adults AND alleviate	28
PsycInfo 11.12.2020	Loneliness AND Adolescents OR teenagers OR young adults AND Intervention AND Suffering	6

During the initial stage of the data search, 423 titles and abstracts were screened for inclusion. After the removal of duplicates, 370 unique articles were identified and those titles and abstracts reviewed. Of these, 240 articles were excluded because the age range used deviated from the inclusion criteria. The first author performed a full text screening of the remaining 130 articles, whereafter 102 articles were excluded because the discussion of loneliness among adolescents and young adults was not related to underlying causes. Consequently, a total of 28 studies were included in the final review. The study identification and screening process as well as the number of articles retrieved are illustrated in a PRISMA Flow Diagram (see, [Figure 1](#); Page et al., 2021).

Data analysis and synthesis

To gain an overview of the existing research and literature on the causes underlying involuntary loneliness among adolescents and young adults, a modified integrative review method inspired by Whittemore and Knafl (2005) was used. This is the broadest type of research review method that allows for the simultaneous inclusion of experimental and non-experimental research and thus facilitates varied perspectives on and more comprehensive understanding of the phenomena being studied (Broome, 1993). The integrative review was performed in two separate stages. The first stage included an analysis of the articles found through the electronic database searches. During this stage, focus lay on the extraction of data related to the causes of involuntary loneliness among adolescents and young adults. When combining diverse empirical sources in a review, the recommendation is to evaluate and score sources in accordance with key criteria pertinent to the specific

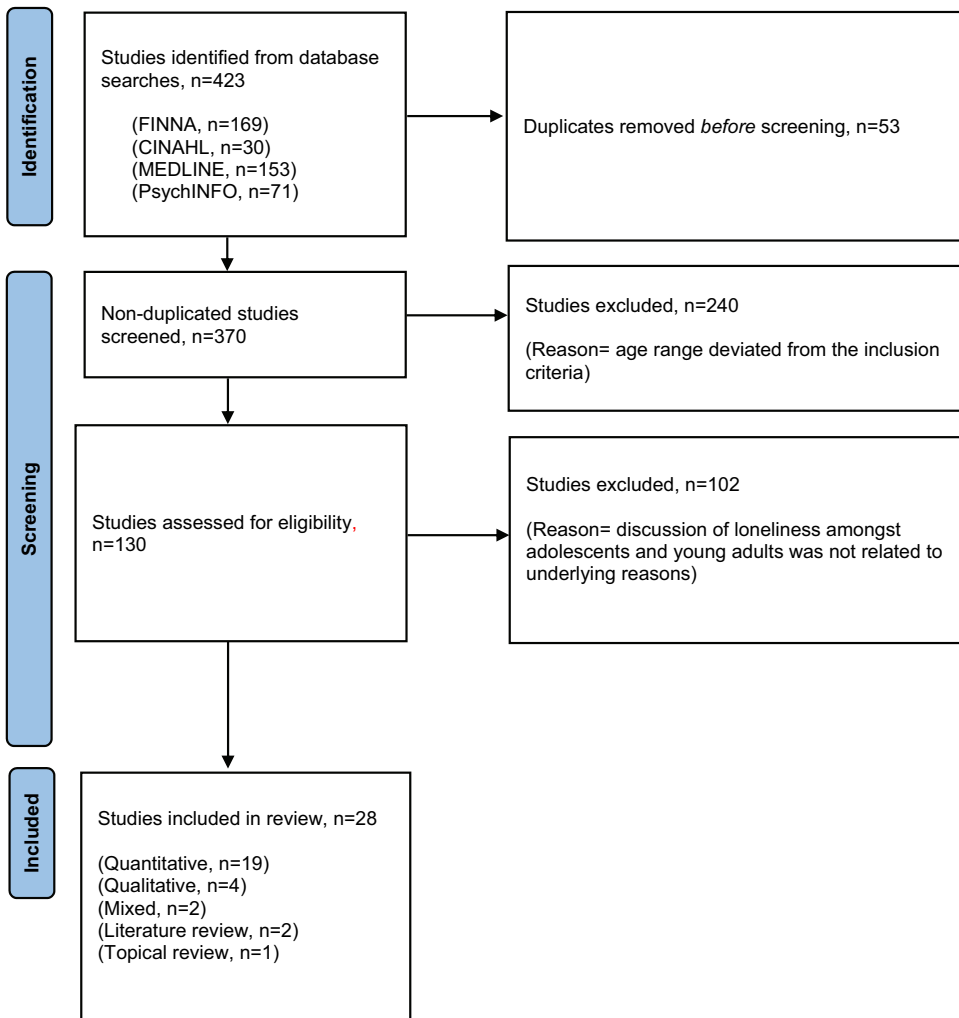


Figure 1. PRISMA flow diagram of study identification and screening process.

type of review being undertaken, in lieu of the application of method-specific approaches (Whittemore & Knafl, 2005). Accordingly, the first author evaluated the included studies relevant to methodological and theoretical rigour and data relevance using a 2-point rating scale (low or high; Whittemore & Knafl, 2005). In general terms, those studies considered to be of low rigour contributed less to the analytic process. See, Table 2 for an overview of the results from the first stage of the data analysis.

The second stage of the data analysis included thematic analysis of the results (Braun & Clarke, 2006) of the first stage of data analysis. To facilitate integration, the quantitative findings were transformed into qualitative findings. The qualitative findings were then read several times and organized into themes and subthemes based on similarities. Four main themes and 7 subthemes related to the aim of the study (Whittemore & Knafl, 2005) were generated, providing a comprehensive understanding of the research objective. See, Table 3 for an example of the thematic analysis undertaken during the second stage of data analysis.

Table 2. Overview of results from the first stage of data analysis.

Author(s), year published	Country	Sample	Age (in years)	Aims	Design/data collection Rigour	Major findings
Cheung & Zembrack, 2017	USA	n = 21	18–39	To generate findings from informed young adolescent and adult cancer patients (AYAs) that resource developers can use to create products consistent with AYAs' expressed preferences for information and support.	Mixed/Modified Delphi technique High = 2	AYA cancer patients are often isolated from their healthy peers by a life-threatening disease; AYA patients prefer resources that reduce feelings of loneliness, create a sense of community or belonging. Compared to healthy adolescents, those with chronic pain report less social peer acceptance, have fewer friends, are more likely to suffer from social isolation.
Riggenbach et al., 2019	Switzerland/ Belgium			To foster understanding of what makes adaptive living possible among youngsters with chronic pain.	Topical review High = 2	Depressive symptoms and loneliness mutually reinforce one another.
Luyckx et al., 2012	Belgium	n = 429 at Time 1 n = 398 at Time 2 n = 365 at Time 3	14–18	To study how depressive symptoms, loneliness, paternal and maternal support, and quality of life predicted one another amongst adolescents with congenital heart disease.	Quantitative/Cross-lagged analyses of variables at Time 1–3 High = 2	Loneliness is negatively correlated with life satisfaction and positively correlated with stress and depression.
Tu & Zhang, 2015	China	Mean = 19.02 n = 444		To examine the main effects of loneliness on adolescent's stress, depression, and life satisfaction, as well as the mediating effect of self-efficacy between them.	Quantitative/Multiple regressions analysis High = 2	Lonelier young adults were more likely to experience mental health problems, to engage in physical health risk behaviours, and to use more negative strategies to cope with stress. Lonelier young adults were, as children, more likely to have had mental health difficulties and to have experienced bullying and social isolation.
Matthews et al., 2019	UK/USA	n = 2232	18	To build an integrative profile of the correlates of young adults' feelings of loneliness.	Quantitative/Regression analyses and longitudinal analyses High = 2	Resolution of grief may be particularly challenging for college students due to the fact that they are often far away from friends and family who may provide social support.
Thal & Moore, 2018	USA	-	-	To understand the grief process for young adults and how to best support young adults who are grieving.	Literature review Low = 1	The young adults felt that no one had really understood what they were going through. Although there were many people present, loneliness was still there.
Karlsson et al., 2013	Sweden	n = 6	20–26	To describe young adults' own perspectives on the experience of having a parent who developed cancer when the young adult was an adolescent.	Qualitative/Narrative interviews with qualitative content analysis Low = 1	

(Continued)



Table 2. (Continued).

Author(s), year published Country	Sample	Age (in years)	Aims	Design/data collection Rigour	Major findings
Marcus et al., 2012 Canada	n = 8	18–25	To understand the experiences of young people with mental health concerns by analysing the content of their blogs.	Qualitative/Combination of grounded theory and consensual qualitative research methods High = 2	The young adult bloggers expressed significant feelings of powerlessness as a result of their mental health concerns and simultaneously felt a profound sense of loneliness, alienation, and lack of connection with others.
Danneel et al., 2019 Belgium/ Netherlands	Sample 1 n = 1116 Sample 2 n = 1423 Sample 3 n = 549	Sample 1 Mean = 13,59 Sample 2 Mean = 13,79 Sample 3 Mean = 14,82	To extend earlier research on adolescents by investigating the temporal sequence among loneliness, social anxiety symptoms, and depressive symptoms.	Quantitative/Meta-analytic techniques High = 2	Social anxiety symptoms play a crucial role as potential antecedent of emerging feelings of loneliness and depression in adolescence.
Vanhalst et al., 2012 Belgium/ Netherlands	Wave 1 n = 428 Wave 2 n = 416 Wave 3 n = 403 Wave 4 n = 356 Wave 5 n = 313	13–16	To examine the direction of effect between loneliness and depressive symptoms amongst adolescents.	Quantitative/Cross-lagged path analysis High = 2	Loneliness and depressive symptoms influenced one another reciprocally, and these reciprocal associations were not attributable to their mutual overlap with personality traits.
Diehl et al., 2018 Germany	n = 689	16–29	To quantify loneliness among students and to identify its determinants and its relation to transition-related variables.	Quantitative/Descriptive statistics and linear regression High = 2	Transition-related variables regarding social and emotional loneliness produced mixed results. Changes in diet from high school to university were associated with higher scores in emotional loneliness, whereas changes in weight were associated with lower scores in social loneliness.
Strickley et al., 2016 Sweden/Japan	Czech Republic n = 2205 Russia, n = 1995 USA, n = 2050	13–15	To examine if specific demographic, parenting, personal or school-based factors were linked to feeling lonely and whether lonely adolescents were more likely to report psychological (depression and anxiety) or somatic symptoms (e.g. headaches, pain).	Quantitative/Logistic regression analysis High = 2	Inconsistent parenting, shyness, and peer victimization were associated with higher odds for loneliness in at least. Adolescents who were lonely had higher odds for reporting headaches, anxiety and depressive symptoms across all subgroups. Loneliness was associated with other somatic symptoms in at least half of the adolescent subgroups.
Maes et al., 2019 Belgium/ Netherlands	n = 41 776	Mean = 15,59	To conduct a meta-analysis on the association between loneliness and social anxiety symptoms across childhood and adolescence.	Quantitative/Multilevel meta-analyses High = 2	Results indicated a strong, positive cross-sectional association between loneliness and social anxiety symptoms, loneliness and social anxiety symptoms were reciprocally associated over time.

(Continued)

Table 2. (Continued).

Author(s), year published	Country	Sample	Age (in years)	Aims	Design/data collection Rigour	Major findings
Vaarala et al., 2013	Finland	-	College students at universities in Finland	To analyse college students' descriptions of the nature of their loneliness and their ways of coping with it.	Qualitative/content analysis High = 2	Problems with social skills and interaction were categorized into two main factors that were difficulties in becoming acquainted with people and fear of social situations. Other factors named were abstinence from alcohol, different interests with others, and solitary hobbies as well as issues with studies and dating, economic reasons, moving from childhood home to one's own apartment, moving away from old friends. Bullying was influenced negatively on the students' self-esteem and trust in other people.
Hum & Carr, 2018	Australia	n = 588	18–38, Mean = 19,8	To examine whether loneliness was associated with problem gambling risk in culturally and linguistically diverse (CALD) university students relative to their Australian peers.	Quantitative/Statistical analysis High = 2	Inspection of the mean loneliness scores grouped by cultural background and gambling risk revealed the lowest levels of loneliness in the Australian group, irrespective of gambling risk, and highest scores where in the CALD group of at-risk gamblers.
Du et al., 2019	China/USA	n = 195	7–15	To test if feelings of loneliness among children and adolescents affected by parental HIV would decrease their self-esteem over time.	Quantitative/Cross-lagged panel models High = 2	Loneliness predicted decreased levels of self-esteem over time among children and adolescents affected by parental HIV; in addition, low self-esteem predicted increased levels of loneliness over time.
Chen & Qin, 2020	China	n = 569	10–15	To (a) investigate the relationship between emotional abuse and social anxiety, and (b) explore the mediating roles of self-esteem and loneliness in the relationship between emotional abuse and social anxiety among Chinese adolescents and pre-adolescents.	Quantitative/ Structural equation modelling; descriptive statistics and correlation analysis High = 2	Emotional abuse was positively associated with social anxiety and loneliness and negatively associated with self-esteem.
Thornberg et al., 2013	Sweden	n = 21	17–34 Mean = 23,5	To investigate how individuals who had been victims of school bullying perceived their bullying experiences and how these had affected them and to generate a grounded theory of being a victim of bullying at school.	Qualitative/Qualitative data analysis High = 2	The informants' experienced stigmatizing during the initial attacks; findings revealed a set of self-protecting strategies (self-isolating, introverting, social shielding, turning off emotions and self-inhibiting) that the informants developed during their bullying experiences as ways of coping.
Gentina & Chen, 2019	France/USA	n = 409	Mean = 16,2	To compare online self-disclosure through Facebook with offline self-disclosure through face-to-face interactions to understand when and why digital natives may prefer to resolve perceived loneliness by turning to the Internet.	Quantitative/Descriptive statistics Low = 1	Adolescents who employ social networking sites (SNSs) to manage their perceived loneliness are engaged in passive coping, which is inferior to active coping.

(Continued)



Table 2. (Continued).

Author(s), year published Country	Sample	Age (in years)	Aims	Design/data collection Rigour	Major findings
Carr et al., 2013 UK	n = 131	Mean = 19.4	To explore the links between attachment styles and an array of indicators of psychosocial wellbeing and mental health in students making the transition into university education.	Quantitative/Descriptive statistics, bivariate correlations and multiple regression analyses High = 2	The dimension of attachment insecurity positively predicted loneliness perceptions and negatively predicted perceptions of integration with peers and faculty.
Lee & Goldstein, 2016 USA	n = 636	18–25	To extend the current research on social support by examining its associations with loneliness amongst college-aged youth during the transition to adulthood.	Quantitative/ SPSS correlation analysis, series of hierarchical multiple regressions Low = 1	When youth are re-establishing their roles in family and society, they may be particularly vulnerable to feelings of loneliness and isolation; only support from friends buffered the association between perceived stress and loneliness.
Ray et al., 2019 USA	n = 398	Under 25–65, 88% of respondents were in the group under 25–30	To determine the prevalence of social isolation and associated factors in graduate and professional health science students.	Mixed/Cross-sectional mixed-methods High = 2	Lacking a strong support, being a non-native English speaker, having caregiving responsibilities, and experiencing "lonely" items described in the UCLA Loneliness Scale were positively associated with social isolation.
Smith & Khawaja, 2011 Australia	-	-	To provide a review of current acculturation models as applied to international students and to determine the extent to which these models characterize the acculturation experience of international students.	Literature review (Low = 1)	Cultural norms, language barriers, and the nature of friendships in the host country may impede international students' ability to establish friendships, and thus contribute to their feelings of loneliness.
Kruse et al., 2014 USA	n = 443	Navy recruits in basic training	To examine such factors as adult attachment, perceived social support, sense of belonging, conflict in relationships, and loneliness for their relationships in a relational model for depression with U.S. Navy recruits in basic training.	Quantitative/Theory-testing analysis; structural equation modelling High = 2	The proposed model explained 49% of the variance in depressive symptoms with loneliness and sense of belonging as the strongest indicators of depression; experiencing loneliness during basic training, recruits succeed only if they are able to handle effectively troubling emotions and redress the loss of their former lives.
Wawera & McCamley, 2020 UK	n = 61	18–34	To explore loneliness in an international student population in a single university.	Quantitative/ Convergent parallel mixed method design High = 2	Three out of four, across the international student sample with no single subgroup or population group identified as lonelier; evidence of loneliness at the beginning on arrival, with participants talking about isolating themselves. For some this was not just an arrival issue but continued throughout their time in the UK and became more prominent when social situations changed such as people they had got to know moving or leaving.

(Continued)

Table 2. (Continued).

Author(s), year published Country	Sample	Age (in years)	Aims	Design/data collection Rigour	Major findings
Wright, 2016 Czech Republic/ USA	n = 568	13–15	To investigate the longitudinal buffering effect of different parental mediation strategies in the association between cyberbullying victimization and psychosocial adjustment difficulties (i.e. depression, anxiety, loneliness). To examine predictors of hooking up in a sample of young adults.	Quantitative/Structural regression model and confirmatory factor analysis Low = 1	Cyberbullying victimization was related positively to restrictive mediation and Time 2 depression, anxiety and loneliness.
Owen et al., 2011 USA	n = 394	17–25	To examine predictors of hooking up in a sample of young adults.	Quantitative/Multinomial logistic regression Low = 1	There was a significant interaction effect for depressive symptoms and loneliness at Time 1 and engaging in penetrative hook ups over the course of the semester.
Gentina et al., 2018 France	n = 409	13–17	To investigate the effects of coping strategies for loneliness on adolescents' adoption of unethical behaviours.	Quantitative/Exploratory factor analysis and latent factor analysis Low = 1	Whether loneliness leads to the adoption of unethical behaviours depends on the strategies adolescents use to cope with their loneliness: active coping strategies are associated with fewer unethical behaviours, whereas passive coping strategies are associated with more unethical behaviours.

Table 3. Example of the thematic analysis undertaken during the second stage of data analysis.

Reference	Year published	Findings	Subtheme	Theme
Vaarala, M., Uusiautti, S., & Määttä, K. <i>College students' experiences of and coping with loneliness – possibilities of peer support.</i>	2013	Factors associated with loneliness were, e.g. problems with self-esteem, introversion and unsociability, shyness, slowness in making friends, selectivity in relationships, lack of trust in people, self-related doubts, depression.	Personality traits	Loneliness due to personal barriers
Karlsson, E., Andersson, K., & Hedman Ahlström, B. <i>Loneliness despite the presence of others – Adolescents' experiences of having a parent who becomes ill with cancer.</i>	2013	The young adults felt that no one had really understood what they were going through. Although there were many people present, loneliness was still there.	Significant loss	Loneliness due to negative life experiences
Matthews, T., Danese, A., Caspi, A., Fisher, H. L., Goldman-Mellor, S., Kopa, A., . . . Arseneault, L. <i>Lonely young adults in modern Britain: Findings from an epidemiological cohort study</i>	2019	Lonelier young adults were more likely to experience mental health problems, to engage in physical health risk behaviours, and to use more negative strategies to cope with stress. Lonelier young adults were, as children, more likely to have experienced bullying	Mental suffering Inefficient coping strategies Bullying/cyberbullying	Loneliness due to different dimensions of suffering Loneliness due to personal barriers Loneliness due to negative life experiences

Ethical considerations

The ethical guidelines outlined by the Finnish Advisory Board on Research Integrity TENK (Finnish National Advisory Board on Research Ethics TENK, 2012; Finnish National Board on Research Integrity, TENK, 2019) were followed throughout the entire research process. The data used in the study were selected based on the inclusion and exclusion criteria. To respect the source material, accurate reference to the studies included in the review, including precise reproduction of study results, was undertaken.

Findings

Four main themes and 7 subthemes were generated, linked to what underlies involuntary loneliness among adolescents and young adults (see, Table 4). The four main themes were: Loneliness due to different dimensions of suffering, Loneliness due to personal barriers, Loneliness due to negative life experiences, Loneliness due to life transitions. The subthemes were: Physical suffering, Mental suffering; Personality traits, Inefficient coping strategies; Significant loss, Bullying/cyberbullying, Insecure family relationships.

Loneliness due to different dimensions of suffering

In this theme, loneliness among adolescents and young adults was linked to different dimensions of suffering. This theme included two subthemes: Physical suffering and Mental Suffering.

Physical suffering

A strong association between physical disease and loneliness among adolescents and young adults was discerned. For example, loneliness was seen as the consequence of poor physical health among adolescents and young adults (Cheung & Zebrack, 2017; Riggensbach et al., 2019).

Table 4. Main themes and subthemes generated from the analysis.

Main themes	Subthemes
Loneliness due to different dimensions of suffering	Physical suffering Mental suffering
Loneliness due to personal barriers	Personality traits Inefficient coping strategies
Loneliness due to negative life experiences	Significant loss Bullying/cyberbullying Insecure family relationships
Loneliness due to life transitions	

Adolescents and young adults with chronic physical disease were found to more often report social isolation (Cheung & Zebrack, 2017), low social peer acceptance and/or having fewer friends (Riggenbach et al., 2019). Partly linked to having more responsibilities because of poor state of health, the sense of being different or misunderstood by peers was associated with loneliness among adolescents and young adults with poor physical health (Riggenbach et al., 2019). Depression and loneliness were even found to be mutually reinforced and predictive of the other among adolescents and young adults with congenital heart disease (Luyckx et al., 2012).

Mental suffering

As seen in the included studies, adolescents and young adults may often experience a combination of loneliness, anxiety and depression. Loneliness was seen to be associated with poorer mental health among adolescents and young adults, including anxiety and depressive symptoms (Stickley et al., 2016). Also, it was seen that a 'vicious circle' could be created between loneliness and other negative mental states: loneliness and social anxiety (Danneel et al., 2019), loneliness and depression (Vanhalst et al., 2012) or simultaneous loneliness, anxiety and depression (Diehl et al., 2018). Emotional loneliness and social loneliness among university students were found to be associated with feelings of depression and anxiety (Diehl et al., 2018). Loneliness and depressive symptoms were even seen to influence one another reciprocally among adolescents and young adults (Vanhalst et al., 2012). A strong, positive and reciprocal association between loneliness and social anxiety symptoms was even seen; failing to address both phenomena could possibly lead to greater problems during development and/or hinder the effectiveness of later interventions (Maes et al., 2019). Adolescents with mental health concerns were seen to possibly lack the skills to connect with others, which could increase their sense that they are unable to form social connections or are unworthy of friendship (Marcus et al., 2012). It was even seen that adolescents and young adults might be scared or unsure about seeking mental health care or even feel as if they are a burden to others when in need of mental health care, which in turn may contribute to their sense of loneliness (Marcus et al., 2012).

Loneliness due to personal barriers

In this theme, loneliness among adolescents and young adults was linked to various personal barriers. This theme included two subthemes: Personality traits and Inefficient coping strategies.

Personality traits

A link between certain personality traits and loneliness among adolescents and young adults was seen in the studies included in this review. Loneliness among adolescents and young adults was linked to various personality traits, e.g. shyness (Stickley et al., 2016), introversion, unsociability, slowness in making friends, selectivity in relationships, lack of trust in people, self-related doubts (Vaarala et al., 2013) or low self-efficacy (Tu & Zhang, 2015). Loneliness and depressive symptoms

were seen among those adolescents and young adults scoring high in neuroticism (measured in accordance with the Big Five personality traits; Vanhalst et al., 2012).

Inefficient coping strategies

As discerned from the included studies, lonelier adolescents and young adults were seen to be more likely to either lack coping strategies or engage in more negative behaviours, interpreted in this study as the use of inefficient coping strategies when seeking to manage loneliness. Among university students, loneliness was seen to be both a consequence of and a predictor for casual sexual encounters ('hook ups'), with such encounters possibly linked to the alleviation of self-doubt, shyness or anxiety (Owen et al., 2011). Lonelier young adults were also seen to ignore other activities and obligations and instead compulsively use social media apps to manage their loneliness (Matthews et al., 2019). The use of both online and offline self-disclosure to manage loneliness was even seen (Gentina & Chen, 2019), with the conclusion that those adolescents and young adults who use self-disclosure may do so to potentially compensate for a lack of social connectivity. Moreover, such actions may be linked to negative/destructive coping strategies.

Loneliness due to negative life experiences

Loneliness among adolescents and young adults was also linked to negative life experiences. This theme included three subthemes: Significant loss, Bullying/cyberbullying, Insecure family relationships.

Significant loss

A recurrent subtheme seen in several included studies was that negative life events, e.g. the death of a loved or significant one or having a loved or significant one experiencing poorer health or significant disease, could be associated with various problems among adolescents and young adults, including loneliness. In one study in which adolescents with a parent who had cancer were included, despite the presence of others the adolescent respondents experienced physical loneliness and a feeling of being emotionally alone in their experience (Karlsson et al., 2013). The adolescents in that study even perceived that they had difficulties communicating with friends and that others did not really understand what they were experiencing. Experiencing stigmatization was seen to be common among adolescents and young adults who have been affected by parental HIV, seen as social distancing and negative attitudes from others that could, in turn, lead to loneliness and social exclusion (Du et al., 2019). Even the death of a loved or significant one was seen to be possibly associated with psychological distress, linked to the intensity of the emotions experienced as well as adolescents' and young adults' lack of experience in processing death (Thai & Moore, 2018).

Bullying/cyberbullying

From the included studies, lonelier adolescents and young adults who had experienced bullying or cyberbullying were seen to have an increased risk for anxiety, depression and/or distrust of others, and such bullying could lead to an inability to build meaningful relationships and, thereby, loneliness. Non-bullying peers were often seen to marginalize adolescents and young adults who were bullied, which could be linked to the adaptation of a self-isolating strategy or introversion as a type of self-protecting strategy (Thornberg et al., 2013). Adolescents and young adults who experienced traumatic environments or childhood bullying were seen to have an increased risk for anxiety and major depressive disorders and often suffer from loneliness (Chen & Qin, 2020; Matthews et al., 2019). Also, cyberbullying was seen to possibly lead to young people experiencing various psychosocial adjustment difficulties, e.g. loneliness, anxiety or depression (Wright, 2016).

Insecure family relationships

Even insecure family relationships were seen to be associated with involuntary loneliness among adolescents and young adults. Adolescents who lack parental support or experience insecure family relationships when growing up were often seen to experience loneliness, with inconsistent parenting seen as a factor that could increase adolescents' and young adults' risk for loneliness (Stickley et al., 2016). A home culture of silence, non-active or absent parental listening, an authoritative home upbringing and/or parental alcoholism were also seen to be factors that could hinder social life during childhood and possibly lead to experiences of loneliness later in life (Vaarala et al., 2013). Also insecure parent-child relationships were seen to positively predict loneliness and negative psychosocial well-being and mental health among those making the transition to university (Carr et al., 2013).

Loneliness due to life transitions

In this theme, loneliness among adolescents and young adults was linked to life transitions. There were no subthemes included in this theme. In the included studies, adolescents and young adults were seen to experience higher rates of loneliness during life transitions, e.g. starting university or being an international student or military recruit. First-year university students were particularly seen to be predisposed to transition stress and loneliness. Life for young adults in a new environment could be challenging; among other things it could be difficult to initiate and maintain social connections with new peers and/or staff (Carr et al., 2013).

Life as a student can be difficult and was often associated with loneliness in the included studies. In one study set in the United States of America (USA), university students who experienced feelings of loneliness were seen to have higher levels of stress (Lee & Goldstein, 2016). In another study also set in the USA, social isolation for university students was positively linked to having caregiver responsibilities, with respondents indicating that it could be difficult to develop peer connections while also maintaining studies and caregiver responsibilities (Ray et al., 2019). In a study set in Finland, problems with studies or dating, economic issues or living in an apartment away from home for the first time were seen to be factors linked to loneliness and/or involuntary isolation among university students (Vaarala et al., 2013). In a study set in Germany, young university students' higher emotional loneliness scores were associated with transition-related variables, e.g. changes in diet (Diehl et al., 2018).

International university students were seen to possibly experience loneliness and alienation, linked to feelings of being lonely during traditional holidays, missing home and local traditions, or a fear of 'missing out on family ties' (Wawera & McCamley, 2020). The transition to university for international students was also seen to be challenging, linked to leaving a familiar environment and a wider social network and experiencing new and unknown settings (Ray et al., 2019; Smith & Khawaja, 2011). For culturally and linguistically diverse students, e.g. international students, emotional vulnerability was seen to possibly increase when adapting to a new university environment (Hum & Carr, 2018), linked to a perceived inability to manage problems considered manageable in the home environment in the new setting. Also, culturally and linguistically diverse students were found to possibly engage in self-blame, which in turn could result in loneliness, isolation, frustration or hopelessness. Moreover, such students were seen to possibly become addicted to problem gambling when seeking to alleviate their loneliness.

Comparable to the transition to university, many risk factors for loneliness specific to the military context were seen in the included studies. For example, new military recruits were seen to experience loneliness during basic training (Kruse et al., 2014). Of the interpersonal phenomena assessed in that included study, loneliness was found to be the strongest predictor of depressive symptoms among new military recruits. It was surmised that, despite being in continual contact with others, new military recruits could have difficulties forming new relationships because of a lack of developed attachment systems or because they were unable to engage when in new, stressful environments.

The conclusion was that new military recruits would be capable of forming new relationships only once troubling emotions were effectively managed.

Discussion

Using an integrative review, we sought to synthesize the existing knowledge on the causes underlying involuntary loneliness among adolescents and young adults. From the analysis, 4 main themes and 7 subthemes were generated: Loneliness due to different dimensions of suffering (Physical suffering, Mental suffering), Loneliness due to personal barriers (Personality traits, Inefficient coping strategies), Loneliness due to negative life experiences (Significant loss, Bullying/cyberbullying, Insecure family relationships), Loneliness due to life transitions.

We found that there are many different aspects to the phenomenon of loneliness. Loneliness can be defined as a social experience (DiTommaso & Spinner, 1993; Perlman & Peplau, 1981; Weiss, 1973) and as stemming from, e.g. a less satisfying network of social relationships than one desires. Loneliness can also be defined as an emotional experience (DiTommaso & Spinner, 1993; Weiss, 1973), linked to the lack of a close, intimate bond with another. Common to such theories is a focus on a person's subjective perception of deficiencies in his/her network of social relationships. Strang (2014) even emphasizes the subjective nature of the experience of loneliness, noting that self-selected, intrapersonal and/or existential causes may underly loneliness. Others link experiences of loneliness to human beings' fundamental need to belong (Baumeister & Leary, 1995; Erikson, 1968; Rokach, 1989) or insecure attachment during childhood (Bowlby, 1969; Wiseman et al., 2006). Still others maintain that loneliness should be defined as being chronic and transitory (Sháked & Rokach, 2015).

We discerned from the findings of this integrative review that there is a complexity to loneliness. Given that the phenomenon can be linked to a myriad of underlying causes, we conclude that complex circumstances might underlie each individual's experience of loneliness. This is in line with a hermeneutical, caritative Caring Science approach, in which loneliness is defined as a complex dimension that can be experienced on many levels (Nilsson et al., 2006) and as both a positive and negative experience (Eriksson, 2018). Moreover, as seen in the theory of caritative caring, loneliness is considered to be a subjective experience (Eriksson, 2018; Lindström et al., 2018), which is in line with the findings of this review. Each patient should be placed at the centre of care because each human being is unique (Eriksson, 2018). Accordingly, each unique description and experience of loneliness should be heard if one is to understand or seek to alleviate others' negative experiences of loneliness (Eriksson, 2018).

In the findings adolescents' and young adults' involuntary loneliness was seen to be associated with different dimensions of suffering. This is also in line with the theory of caritative caring, in which loneliness is linked to human suffering (Eriksson, 2006, 2018). Even chronic physical disease and physical suffering were seen to limit adolescents' and young adults' ability to interact with others (Cheung & Zebrack, 2017; Luyckx et al., 2012; Riggerbach et al., 2019), also in line with the theory of caritative caring. Eriksson (1994) found that suffering arises when human beings are for some reason limited in their opportunity to participate the way they wish to in life. In accordance with the theory of caritative caring, suffering from loneliness implies on a deep existential level that a human being cannot manage his/her loneliness (Eriksson, 2018) and/or feels a painful discrepancy in his/her whole life situation (cf., Perlman & Peplau, 1981). In Weiss' theory of loneliness (Weiss, 1973), a person's requirements (needs) for well-being can only be met through relationships. Therefore, a person must maintain a number of different, specialized relationships to maintain health.

It is highly important in care contexts to invite suffering adolescents and young adults into a caring encounter and provide them with time and space (Eriksson, 2018) because, as seen in this review, the isolating nature of many chronic diseases/diagnoses can lead to loneliness among adolescents. In accordance with the theory of caritative caring, a person can experience community with another human being in a caring communion, which may facilitate the inner strength necessary

for health (Lindström et al., 2018). It is therefore essential that adolescents and young adults be invited into and experience communion in the caring encounter (in practice) because this can lead to a sense of community or belonging as well as provide positive social interactions that might minimize the risk of experiencing loneliness.

From the findings, loneliness among adolescents and young adults was even seen to be associated with mental suffering (Danneel et al., 2019; Diehl et al., 2018; Vanhalst et al., 2012). We discerned that such suffering was associated with profound loneliness, which could occur despite the physical presence of others. Loneliness can be experienced even though a person is surrounded by others, and such loneliness can be considered a spiritual loneliness that results in a sense of joylessness and meaninglessness in one's life (Eriksson & Lindström, 2003; cf., Fardghassemi & Joffe, 2022). Support in alleviating such suffering, therefore, is crucial (cf. BLINDED for peer review process). Furthermore, adolescents' and young adults' fear or unwillingness to seek mental health care and the perception that they were a burden to others if mental health care was needed was also seen to possibly contribute to loneliness (Marcus et al., 2012). If young adults sense that they are excluded or misunderstood by healthcare providers they may feel disconnected from mental health services or may experience a profound sense of powerlessness alongside their loneliness and suffering (Marcus et al., 2012).

In accordance with the theory of caritative caring, care that 'violates' instead of 'cherishing' the human being's dignity can cause suffering (Lindholm & Eriksson, 1993), and the violation of a patient's dignity and worth as a human being constitutes the most frequently occurring form of suffering associated with care (Eriksson, 2006, 2018). We therefore emphasize the importance of creating safe environments in care settings in which adolescents and young adults are allowed to talk and freely express themselves without being judged: about adverse childhood events, bullying, job insecurity, sexual identity discrimination, etc. This will facilitate the realization of tailored and accessible interventions (i.e. person-centred care), whereby the needs of adolescents and young adults, a vulnerable group, can be met (cf. Hemberg et al., 2021; Hemberg et al., 2022; Sundqvist & Hemberg, 2021).

Also seen in the findings was that certain personality traits could hinder adolescents and young adults from connecting with others and could even possibly lead to loneliness. These included shyness (Stickley et al., 2016), introversion, unsociability (Vaarala et al., 2013) and neuroticism in combination with depression (Vanhalst et al., 2012). This is in line with Van Roekel et al. (2014), who found that adolescents who suffer from loneliness usually tend to perceive themselves and their role in social relationships negatively, which in turn might lead to a state of mind that hinders social contact. Adolescents with low self-esteem tend to doubt their interpersonal value and worry about rejection during interactions with others (Sakız et al., 2021). Low self-esteem and poor social skills might even lead to difficulties in initiating relationships (Perlman & Peplau, 1998), thus it is important that interventions whereby adolescents can improve their social skills and self-esteem be implemented. For example, different therapeutic interventions, e.g. social skills training programmes, shyness and assertion training groups, or cognitive behavioural therapy, may be beneficial (Perlman & Peplau, 1998).

Adolescents' and young adults' use of inefficient coping strategies to manage loneliness was even seen, e.g. the use of social media apps (Matthews et al., 2019) or online and offline self-disclosure (Gentina & Chen, 2019). This is in line with Cacioppo et al. (2015), who found that the prevalence of loneliness appears to be increasing today even though people are increasingly digitally connected (cf., Junntila, 2018). Engaging in casual sexual encounters was also seen as an inefficient coping strategy (Owen et al., 2011). Adolescents' predisposition to prioritize social connections and neglect their emotional needs may lead to emotional loneliness (Fardghassemi & Joffe, 2022). Furthermore, interacting with others, whether online or in real life, can often lead to the making of comparisons and possibly give rise to negative feelings or self-blame (Tornstam et al., 2010).

Loneliness among adolescents and young adults was even seen in the findings as being linked to negative life experiences, e.g. significant loss, bullying/cyberbullying or insecure family relationships.

Among adolescents, the death of a loved or significant one and/or having a loved or significant one experience poorer health or disease were seen to be associated with a sense of being emotionally alone in one's experience, that others do not understand one's experience and that communication with others was difficult (Karlsson et al., 2013). The death of a loved or significant one was also seen to be possibly associated with psychological distress and, thereby, loneliness (Thai & Moore, 2018). According to Weiss (1973), the absence of close, meaningful and more emotionally bound connections may result in emotional loneliness, which can be severely painful. As seen in the review findings, experiencing stigmatization, seen as social distancing and negative attitudes from others, was linked to loneliness among adolescents and young adults. For example, the serious illness of a loved or significant one could result in adolescents' and young adults' social exclusion (Du et al., 2019). In the theory of caritative caring, the human being's desire and need to be a part of a communion is fundamental and being excluded from a communion is detrimental to health and inner strength (Lindström et al., 2018). Other negative life experiences associated with loneliness among adolescents and young adults that emerged from the findings in this study were being a victim of bullying (Chen & Qin, 2020; Matthews et al., 2019; Thornberg et al., 2013) or cyberbullying (Wright, 2016). Furthermore, loneliness among adolescents was seen to be linked to a lack of parental support; experiencing insecure family relationships (Carr et al., 2013; Stickley et al., 2016), non-active or absent parental listening; an authoritative home upbringing; and parental alcoholism (Vaarala et al., 2013). Human beings have a fundamental need to belong and be accepted (Erikson, 1968; Rokach, 1989). A lack of meaningful relationships early in life can lead to isolating tendencies (Baumeister & Leary, 1995; Bowlby, 1969; cf., Wiseman et al., 2006). We again stress the importance of the establishment of safe environments for adolescents and young adults in multiple settings and the development of more effective preventative methods through which, e.g. bullying and/or loneliness associated with insecure family relationships can be remedied. Furthermore, it is highly important that effective support and assistance be given to all adolescents and young adults experiencing loneliness and/or problematic circumstances.

From the findings, loneliness among adolescents and young adults was moreover seen to be linked to life transitions (cf., Sháked & Rokach, 2015). For young adults, starting university (Carr et al., 2013) or being a university student (Diehl et al., 2018; Lee & Goldstein, 2016; Ray et al., 2019; Vaarala et al., 2013), international student (Ray et al., 2019; Smith & Khawaja, 2011; Wawera & McCamley, 2020), culturally and linguistically diverse student (Hum & Carr, 2018) or new military recruit (Kruse et al., 2014) were seen in the findings to be associated with loneliness. Loneliness can often arise from life transitions, e.g. the disruption of social relationships that occurs when moving to a new place (Perlman & Peplau, 1998; Weiss, 1973). It is important that adolescents and young adults be given social support when adapting (whether psychological or sociocultural adaptation) to new environments. For example, university or military settings might constitute settings with unique potential in which effective services can be provided to support students/recruits during times of transition.

Examining and describing loneliness outgoing from underlying or specific causes is not new (cf., Nilsson et al., 2006; Sháked & Rokach, 2015; Strang, 2014; Weiss, 1973). As seen in the findings of this integrative review, loneliness is a multifaceted phenomenon and many causes underly adolescents' and young adults' involuntary loneliness. The application of a Caring Science perspective has yielded a new dimension to earlier understanding on the research subject. The broad scope of the review, including the inclusion of international studies and a variety of study designs, can be considered strengths. However, because the literature search included a limited number of databases selection bias may have occurred. It is even possible that studies with potential methodological shortcomings were included, which may be a further limitation.

Conclusions

Multiple causes underlie adolescents' and young adults' experiences of involuntary loneliness, seen in this review as different dimensions of suffering, personal barriers, negative life experiences and life

transitions. Such new understanding of loneliness as a multifaceted phenomenon is important and should be taken into consideration during the implementation of interventions to alleviate involuntary loneliness among adolescents and young adults. An exploration of which methods are most effective for alleviating involuntary loneliness among adolescents and young adults and as related to the diverse causes uncovered here should be undertaken in future research.

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Author contributions

Yulia Korzhina contributed to the study conception, data collection, design, data analysis and discussion and drafted the manuscript. Jessica Hemberg contributed to the study conception, design, data analysis and discussion and provided critical reflections. Pia Nyman-Kurkiala and Lisbeth Fagerström contributed to the study data analysis and discussion and provided critical reflections.

Ethical approval

The ethical guidelines outlined by the Finnish Advisory Board on Research Integrity TENK (Finnish National Advisory Board on Research Ethics TENK, 2012; Finnish National Board on Research Integrity, TENK, 2019) were followed throughout the entire research process. The data used in the study were selected based on the inclusion and exclusion criteria. To respect the source material, accurate reference to the studies included in the review, including precise reproduction of study results, was undertaken.

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