Liquid Youth Generation? The New Psychopathological Trajectories of the Post-Modern Society

Laura Orsolini, Leonardo Ricci, Angelica Cicolini and Umberto Volpe[*]

Unit of Clinical Psychiatry, Department of Neurosciences/DIMSC, Polytechnic University of Marche, Ancona, Italy

Abstract: According to Zygmunt Bauman (1999), we are living in an era dominated by a "liquid society". In the liquid society, nothing is clear, defined and fixed "once and for all". The liquid society imposes high standards, it is highly competitive, and computerized. Obviously, this influences every aspect of life, by indeed incentivizing precarious interpersonal relationships. Our post-modern society is dominated by haste and the absence of stable ties. Within this context, adolescents and young adults should define their identity and, at the same time, should acquire the ability to flexibly redefine it, when necessary. Youth identity is forced to constantly adapt itself according to the changing society. This inevitably exposes young people to new forms of discomfort as well as psychopathologies. The purpose of this paper is to provide an overview about the current state-of-the-art of the mental health status of adolescents and young adults in post-modern society, by focusing on seven major themes: digital addiction, effects of media use on behavior and mental-health, social withdrawal, alexithymia, fluid identity, not in education/employment or training people, and self-harm and suicidality.

Keywords: Liquid generation, Liquid society, Mental health, Post-modern society, Psychopathology, Youths.

1. INTRODUCTION

The concept of "liquid society" or "liquid modernity" refers to a society that is characterized by rapid and unpredictable change, fragmentation, and uncertainty [1]. The increasing interconnectedness and interdependence of countries and regions around the world is creating new opportunities for economic, cultural, and social exchange, but it is also contributing to the erosion of traditional cultural and social norms and practices [2]. The widespread adoption of digital technologies, including social media and smartphones, is changing the way people communicate, work, and access information [3], and it is indeed shaping and building new forms of social interaction and identity formation [4] with variable effects depending on the age [5]. The emphasis on personal autonomy and self-expression is becoming more pronounced, as individuals seek to assert their identity and differentiate themselves from others in a rapidly changing and fragmented world [6]. Traditional social structures and institutions such as family, religion, and work are becoming more fluid and dynamic and, hence, less firmly stable [7]. Consequently, individuals are expected to be always more adaptable and flexible in response to the ever-changing nature of society and circumstances [8]. In a "liquid society", the future is unpredictable and uncertain, and individuals and institutions are often faced with difficult choices and trade-offs, which can variably impact on the onset of psychopathological symptoms (*e.g.*, anxiety, stress and so forth) but also on the emergence of new post-modern-derived psychopathologies variably expressed depending on the different ages [9, 10].

1.1. The Changing Nature of the Generations in the Post-Modern Society: from Baby Boomers to Alpha Generation

Alpha generation is a term used to describe the generation of people born (or who will be born) between 2010 and 2025 [11]. Alpha generation is growing up in a world where family and household structures are becoming more unstable and fluid and in a continuous dynamism [12]. Obviously, this influence may significantly impact their sense of identity, family relationships, and social norms around parenting and caregiving [13]. Moreover, the alpha generation was born and grown up in a world where digital technology and social media are increasingly integrated into their daily lives [14]. This is likely to have an impact on their social and cognitive development, as well as their relationships with others and their sense of self [15]. In addition, they are more likely to experience significant changes in the way education and learning are structured and delivered, with a greater emphasis on technology, personalized learning, and lifelong learning [16]. This may impact their educational outcomes and their ability to adapt to future changes in the job market [17].

*Address correspondence to this author at the Unit of Clinical Psychiatry, Department of Neurosciences/DIMSC, Polytechnic University of Marche, Ancona, Italy; Tel: +39 71 596 3301; Fax: +39 71 596 3540; E-mail: u.volpe@staff.univpm.it

Z generation (*i.e*., including those individuals who were born roughly between the mid-1990s and mid-2010s) have grown up with digital technology and social media as a ubiquitous part of their lives, and are often referred to as "digital natives" [18]. The Z generation already experienced and manifested new forms of social connection, self-expression, and identity formation [19]. Indeed, Z generation include those individuals more prone to be engaged and to experience pathological social modalities and detrimental effects of the digital technologies, such as cyberbullying, digital addiction, and information overload [20]. They have grown up in an increasingly diverse and inclusive society, with greater awareness and acceptance of differences in terms of race, gender, sexuality, and other identities [21]. This has led to new forms of cultural expression, political activism, and social change, but also to new forms of identity-based conflict and polarization [22]. They have faced significant economic and educational challenges, including a difficult job market, and the changing nature of the work [23]. This has led to a greater emphasis on entrepreneurship, innovation, and lifelong learning, but also to new forms of economic inequality and insecurity [24]. They have experienced significant challenges to mental health and well-being, including rising rates of depression, anxiety, and stress [25]. This has been linked to factors such as social media use, academic pressure, and economic uncertainty, by highlighting the need for new approaches to mental health promotion and support [26].

Millennials or *Generation Y* (*i.e*., including those individuals who were born roughly between the early 1980s and mid-1990s) represent the first generation to have grown up with digital technology and social media as a constant presence in their lives [27]. However, this also comes with challenges such as excessive use of technology, online harassment, and constantly comparing oneself to others on social media, as a result, Millennials may be inclined to compare their own lives to those of others and feel inadequate or dissatisfied if they perceive that they are not living up to the standards or achievements of other social media users. [28]. They have also grown up in a more diverse and inclusive society, which has led to new forms of cultural expression and political activism [29], also mediated by the web [30]. However, this has also led to identity-based conflicts and polarisations, at times, different cultural, ethnic, gender, or religious identities may clash, creating tensions and divisions in society. [31]. The economic obstacles faced by millennials are not so different from those faced by the Z Generation,

including a difficult job market, which has led them to prioritize adaptability and creating their own opportunities which indeed incentivized resourcefulness and independence [32]. However, this has also contributed to a rise in economic inequality and insecurity [33]. They have shown a strong interest in political and environmental activism, with a greater emphasis on social justice, sustainability, and civic engagement [34, 35] This has led to new forms of political mobilization and social change, but also to new forms of political polarization and ideological conflicts that can stem from various factors such as feminism and ecology [36].

X generation (*i.e*., including those individuals who were born roughly between the mid-1960s and early 1980s) experienced a more volatile job market compared to previous generations, with increased job insecurity, and temporary contracts [37]. This has led to a greater emphasis on career flexibility and the need to adapt to changing job demands [38]. The rise of divorce rates and single parenthood, combined with the delayed age of marriage and childbearing, has led to a greater diversity of family and household structures [39]. The X generation has endured these changes firsthand, with many individuals navigating different family configurations and roles throughout their lives [40]. They have experienced the rapid rise of digital technologies and social media, which have transformed the way people communicate, work, and interact [41]. They have lived through significant political and cultural shifts, including the end of the Cold War (1947–1991) [42], the rise of neoliberalism (late-20th century) [43], and the emergence of new social movements such as feminism (1980s–2000s) [44] and environmentalism [45]. These changes shaped their values, beliefs, and political affiliations, and contributed to the emergence of new forms of cultural and political diversity [46].

Baby boomers (*i.e*., those individuals who were born roughly between 1946 and 1964) grew up in a world that was less reliant on technology compared to subsequent generations [47]. While they endured some technological advances such as the television and the telephone, they did not have access to the same level of digital technology and social media compared to later generations [48]. They experienced a different job market compared to later generations, with a greater emphasis on job security, traditional career paths, and defined benefit retirement plans [49]. They were more likely to stay with one employer for their entire career, and were less likely to experience the same level of economic and job insecurity as later generations. They

endured a society that placed a greater emphasis on traditional family structures, with a greater expectation of marriage, childbearing, and gender roles [50]. They were less likely to experience the same level of diversity in family and household structures as later generations [50]. They experienced the emergence of significant social and political movements, including the civil rights movement (1954–1968) [51, 52], and the anti-war movement (1960s–1970s) [53]. These movements shaped their values, beliefs, and political affiliations, and contributed to the emergence of new forms of social and cultural diversity [54]. They endured a different global context compared to later generations, with a greater emphasis on national identity and sovereignty, and less awareness of global environmental challenges such as climate change and biodiversity loss [55].

1.2. The Potential Psychopathological Impact of the Post-Modern Society

In recent years, new ways in which youth express their discomfort are emerging, allowing us to gain insight into the adolescent mind, which presents new aspects and is different from what we are used to; this mind lives and works differently and requires new diagnostic tools and, consequently, new therapeutic tools [56]. These differences and new aspects are emerging in a world where technology is developing disproportionately [57], where globalization is spreading rapidly and where the migratory and various forms of crises, such as economic crisis, are a relevant source of stress [58, 59]. Specifically in this context, adolescents and young adults are forced to develop new tasks that are related to personal autonomy, the construction of a sense of self, the need to manage body transformations, emerging sexuality, and concerns about the future. These tasks certainly become a source of distress if they collide with a fragile self that must deal with an increasingly competitive world [60-63]. Classical psychopathology has always fed on concepts such as delusions, hallucinations, dissociation, but today we are faced with psychopathological pictures that do not always manifest themselves through these symptoms [56]. Adolescents and young adults, who spend many hours in front of a screen and even less time with their peers, have difficulty making sense of events, mentalizing their emotions, managing anger and performing cognitively [64]. This makes it increasingly difficult to make classic categorical diagnoses according to the latest Diagnostic and Statistical Manual of Mental Disorders (DSM) [65]. Influenced by the social and

economic context in which the new young people are growing up, new diagnostic and psychopathological entities are emerging, *i.e.* digital addiction, effects of media use on behavior, cognition and mental-health, social withdrawal (and its severe form known as hikikomori, which is Japanese for "pulling inward, being confined."), alexithymia, fluid gender identity and the "identity problem", NEET, non-suicidal self-injury, self-harm and suicide. The emergence of new diagnostic and psychopathological entities presents important new challenges for therapists, who are faced with the early identification of those young people who may begin to follow increasingly complex psychopathological trajectories. This sometimes leads to difficulties in formulating a diagnosis, which, as mentioned earlier, becomes increasingly dimensional within the various categories of the DSM-V-TR. In addition, clinicians face many therapeutic difficulties in the pharmacological and/or psychotherapeutic management of young adults. This challenge can only be met if psychiatrist, psychotherapist, or psychologist makes the therapeutic tools flexible and personalized, even going beyond the scientific rigor that should characterize therapeutic interventions [66].

1.3. Objectives of the Study

The aim of the present overview is: a) identifying the characteristics of the liquid society and how it may affect the formation of the identity of young people and their development; b) identifying and describing the new psychopathological trajectories that are developing within the context of the current liquid society; c) identifying how the 'traditional/old" mental health issues that have always gripped adolescent development, are contextualized/revised within the current post-modern society; d) providing ideas for the treatment of the new hardships of young people.

2. MATERIALS AND METHODS

A comprehensive overview was here conducted by looking for all published literature on the topic of the psychopathological impact of the post-modern society on youth generations, by searching on PubMed, Scopus, and Google Scholar databases. The following key-terms/MESH terms were used: "*young* [Title/Abstract]", "*youth* [Title/Abstract]", "*psychiatry* [Title/Abstract]", "*mental health* [Title/Abstract]", "*psychopathology* [Title/Abstract]", "*liquid society* [Title/Abstract]", "*attention seeking* [Title/Abstract]", "*novelty seeking* [Title/Abstract]", "*sensation seeking* [Title/Abstract]", "*reward* [Title/Abstract]", "*gender identity* [Title/Abstract]", "*alexithymia* [Title/Abstract]",

"*NEET* [Title/Abstract]", "*social isolation* [Title/Abstract]", "*digital addiction* [Title/Abstract]", "*social media* [Title/Abstract]", "*self-harm* [Title/Abstract]". Additional articles were identified through reference lists and citation tracking. Studies were included if they provided insights into the impact of the liquid society. Data were extracted from each article on key themes and findings related to the relationship between the liquid society and psychopathological trajectories, including issues related to identity, culture, and social media use. The quality of each article was assessed based on the relevance and rigor of the research methods used, including the quality of the data collection and analysis. Data were analyzed using a narrative synthesis approach, which involved summarizing and synthesizing the key themes and findings from the included articles. The synthesis was guided by a theoretical framework that emphasized the impact of a liquid society on the development of psychopathology in the youth generation.

3. RESULTS

3.1. Adolescents and Young Adults: Mental Health, Mental Well-being and New Psychopathologies

Several key themes, related to the association between the fluid and unpredictable nature of the modern world and new forms of psychopathology in young people, emerged from the analysis of the scientific literature: digital addiction, effects of media use on behavior and cognition, social withdrawal and Hikikomori, alexithymia, fluid gender identity and the identity problem, not in education, employment, or training (NEET), and non-suicidal self-injury, self-harm and suicide.

3.1.1. Digital Addiction

The widespread use of digital devices such as smartphones, tablets and computers has led many young people to become addicted to these tools, causing physical and mental health problems. Digital addiction (DA) can negatively affect children's study, entertainment, and social interactions [67, 68]. It has been recognized as a global public health problem, and intervention programs have been developed to address this crisis [69]. DA is more common among young people and that excessive use of digital devices can cause psychiatric disorders such as attention deficit, hyperactivity, depression, and anxiety [70]. In addition, it can lead to physical problems such as vision loss, hearing loss and obesity [71]. DA also affects children's

sleeping and eating patterns, causing damage to their health [72].

3.1.2. Effects of Media Use on Behavior, Cognition and Mental-Health

In recent years, social media has become part of our lives. Media and social networks are considered a great resource for anybody, including youths. With the advent of the COVID-19 pandemic, multimedia devices and internet access have exponentially and rapidly increased. Teenagers constantly use social media, mainly Instagram, Facebook, TikTok and YouTube. During the "lockdown", the use of the Intern*et al*lowed easy communication with peers and allowed school activities to be carried out, at least partially limiting the consequences of the pandemic [73]. However, the use of the media can be related to negative consequences especially in the most vulnerable people, such as young people [74]. There are both scientific and societal concerns about the effects of media on behavior, cognition, and brain structure and function [75]. These concerns are obviously greater if reported to the population of young adults, who would present greater risks by virtue of the fact that both their identity and personality, and the functioning of many brain areas is under development [74]. The results of the literature suggest that those who use media intensively are more susceptible to interference from external stimuli deemed irrelevant or from representations in their memory systems [76]. This led to the surprising finding that heavy media users performed worse on a test of ability to switch between tasks, likely due to a reduced ability to filter out interference from irrelevant stimuli. This shows that intensive media use, a rapidly growing behavioral trend, is associated with a distinctive approach to processing basic information. The authors point out that young Americans spend more time with media than any other activity during the day, averaging 7.5 hours per day. This phenomenon affects not only the United States, but also other countries such as Russia and Kuwait [77]. A growing body of evidence shows that those who use digital media heavily have less effective memory, increased impulsivity, less empathy, and higher levels of anxiety; they also have lower performance in relational reasoning, inhibitory control, and long-term memory [78, 79]. At the neurological level, they have a reduced volume of the anterior cingulate cortex. In addition, current data suggest that rapid switching between different tasks (multitasking) while using digital media may have negative effects on academic performance. However, these findings should be interpreted with caution, as the direction of causality is unclear [75].

There are many effects that social media have on mental health. Elevated levels of screen time and social media usage correlate with depression, anxiety, body image misperceptions, especially among females [80-83]. Problematic use of social media is related to about two times higher odds of poorer quality sleep and lower life satisfaction, and is related to lower levels of physical activity, especially in girls [84, 85]. Adolescents who spend more time on the Internet have higher levels of somatic symptoms such as headaches and are at greater risk for family and peer relationship issues [86].

3.1.3. Social Withdrawal and Hikikomori

Social withdrawal refers to the process by which young people withdraw from social life and no longer interact with other people. Obviously, social withdrawal reflects a continuum and the hikikomori phenomenon is at its extreme [87]. Hikikomori is a social phenomenon that originated primarily in Japan and describes extreme social withdrawal behavior in which individuals completely isolate themselves from society, often remaining confined to their homes for extended periods of time, sometimes for years. To better understand hikikomori, it is important to consider its normative social development and the definition of "extreme social withdrawal [88]. In most societies, normative social development involves the acquisition of social skills, the formation of interpersonal relationships, and integration into the community. Children begin to develop social skills at an early age, interacting with family and later with peers at school. During adolescence, young people experience greater independence and seek to establish their own identity, trying to strike a balance between belonging to the peer group and asserting their individuality. In adulthood, maintaining social relationships and integrating into the world of work become important for emotional well-being and personal fulfillment [89]. Hikikomori results from a variety of factors, including social pressure, anxiety, depression, self-esteem issues, difficulty coping with the challenges of adult life, or past trauma. Hikikomori often seek refuge in a safe and familiar environment, such as their own room, avoiding social interactions and preferring virtual communication or complete isolation [90]. The prevalence of Hikikomori is difficult to estimate accurately, but studies suggest that the phenomenon affects several thousand people in Japan. However, similar cases of extreme social withdrawal have been reported in other countries, albeit with different terminology [91]. A related concept is "withdrawal-prone personality," which refers to personality traits that make individuals more prone to

extreme social withdrawal. These traits may include introversion, social anxiety, low self-esteem, avoidance of social situations, and difficulty coping with stress and relationship challenges [92]. However, not everyone with withdrawal-prone personality traits necessarily develops hikikomori [93] From the perspective of developmental psychopathology, hikikomori can be viewed as a form of psychological and social disorder. Individuals who experience extreme social withdrawal may exhibit symptoms of anxiety, depression, mood disorders, emotional isolation, and difficulties in daily functioning. This behavior can have a significant impact on an individual's mental health and overall well-being [94, 95].

3.1.4. Alexithymia

Alexithymia, which literally means "not having words for emotions", is a condition characterized by an inability to recognize and verbalize self- feelings, an externally oriented cognitive style and poor capacity for symbolic thought and daydreaming [96]. The prevalence of alexithymia has been reported to be 7.3%–29.9% in adolescents and approximately 10% in the general population [97, 98]. The clinical relevance of alexithymia is constantly increasing as it has been observed, in both adult and adolescent populations, that high levels of alexithymia are associated with several psychiatric disorders such as schizophrenia, eating disorders, autism, depression, and anxiety [99] [100, 101]. Moreover, alexithymia has been found to be related with non-suicidal self-injury (NSSI) and borderline personality disorders in both adolescents and young adults, indicating that it plays an important role in emotional regulation [102]. The emotional sphere is predominant in adolescence, perhaps more than in other phases of life, since it is precisely in this period that personality and identity complete their structuring [103]. The interpersonal deficits associated with alexithymia may make adolescents particularly vulnerable to disordered and disinhibited eating behaviors, especially binge eating disorder or food addiction [104, 105]. The alexithymic youngsters, faced with his own difficulties in identifying and verbalizing his feelings, with the aim of improving a negative emotional state, which he cannot manage, begins to excessively introduce food, sometimes reaching overeating [100, 106]. Alexithymia may underlie the development of depressive and anxious symptoms during adolescence [99, 107, 108]. This is consistent with previous evidence that seen alexithymia as a marker of interoceptive impairment. The term interoception refers to the perception of internal state of one's body and is thought to underlie a series of emotional processes,

including emotional memory, emotional stability, and emotion regulation [109, 110]. In a period, such as that of adolescence characterized by important changes, including physical change, it is possible that an atypical interoception develops, signaled by alexithymic traits, which in turn gives rise to symptoms of depression and anxiety [107, 111]. A recently published study, in which 753 participants were followed from age 13 to 18, showed that levels of alexithymia, assessed by the validated Toronto Alexithymia Scale (TAS) and its subscales, decreased from adolescence to young age [112]. This demonstrates that alexithymia in adolescence is not a predictor of alexithymia in adulthood; it is therefore possible that alexithymia in adolescents is only a transient condition caused by the development of personality and emotional regulation [112, 103].

3.1.5. Fluid Gender Identity

Sexual identity is mutable and evolves over time; this concept is particularly pertinent to adolescents [113]. Adolescence is a period characterized by an increasing need to form relationships with peers, the beginning of romantic relationships and a strengthening of a sense of sexuality. Adolescence is also that period of life in which sexual identity stops developing; however, this development often differs between different adolescents [114]. Currently, an increasing number of adolescents and young adults describe themselves as transgender, gender fluid, or nonbinary [114, 115]. The definition of "non-binary gender identity" emerged in the 1990s, within the movement to claim the rights of LGBTQ+ people (Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, and others), with the aim of recognizing gender identities that are not reflected in male or female. The concept of non-binary gender identity is an umbrella term to describe all gender identities that do not fit into the male/female binarism. Non-binary people, for example, can identify themselves as "genderless", place themselves within a gender spectrum between masculinity and femininity, or place themselves totally outside the gender binarism. Many non-binary people also identify as transgender – people who do not identify with their birth gender [113]. In a social context that still has an essentially binary and gender perspective and which is linked to the concept of heterosexuality, gender fluid or nonbinary adolescents and young adults find themselves having to face challenges related to social and family acceptance, and these challenges can result in the onset of mental health problems [114]. Suicidal thoughts and attempt

are thought to be around 3 times higher among LGBQT+ youth when compared to heterosexual and cisgender counterparts [116, 117]. Similarly, there is strong evidence showing a higher incidence rate of self-harm in young members of the LGBTQ+ community [118, 119]. In addition, research suggests that adolescents experiencing stress related to managing their gender or sexual identity may report symptoms of depression [120-122]. These data are consistent with evidence that LGBTQ+ youth are exposed to more stressors than their peers, such as societal pressure, institutionalized bias, bullying, and victimization [123]. Unfortunately, both having undergone identity-related stressors and having experienced depressive symptoms, represent risk factors for the development of future mental problems but also negative predictors of future economic and social hardship [124, 125, 122].

3.1.6. NEET

NEET is an acronym that stands for "not in education, employment, or training," and refers to individuals who are not currently engaged in work or educational activities [126]. The term NEET was coined in 1999 in the report "Bridging the Gap", made by British Government's Social Exclusion Unit, the title of which derives from the image of the transition from a purely educational period to a working one, which in turn identifies the transition from adolescenthood to adulthood (Social Exclusion Unit. Bridging the gap: new opportunities for 16–18 year olds not in education, employment or training. 1999. Cabinet Office, London). In the context of liquid modernity, traditional structures and institutions such as family, workplace, and educational systems have become less stable and reliable, so individuals may struggle to find stable employment or educational opportunities. This can contribute to the development of a NEET population, who may face challenges in establishing a sense of identity and purpose in a society that values productivity and achievement [127, 128]. Moreover, in a culture that emphasizes individualism and autonomy, NEET individuals may be particularly vulnerable to feelings of isolation and disconnection, which can impact mental health and well-being [129]. In 2022, 8,8% of 15-29 years-old in the United States of America, 11.7 % European Union of 15-29 years-old were neither in employment nor in education and training; in Europe the proportion ranged from 4.2 % in the Netherlands to 19.8 % in Romania [130]. These numbers have also increased as a result of the economic fallout from the COVID-19 pandemic; In fact,

data show that the percentage of NEETs in the second half of 2020 was the highest ever seen in 45 years in 50 countries [130]. Gariépy and colleagues (2021) discussed the mental health challenges faced by young people who are NEET [131]. The authors highlight the high prevalence of mental health issues among NEET individuals, including depression, anxiety, and substance use disorders. They also note that NEET status can contribute to social isolation and disconnection, which can further exacerbate mental health issues [131]. The authors argue that NEET status is often a symptom of broader societal problems, including economic inequality, lack of access to education and training, and systemic discrimination. They emphasize the importance of identifying and addressing these underlying issues in order to effectively address the mental health needs of NEET individuals. The article also highlights the need for more research and intervention in this area, and suggests that healthcare providers play a critical role in supporting NEET individuals and promoting their well-being. The authors recommend a range of interventions to address the mental health needs of NEET individuals, including social prescribing, community-based programs, and multidisciplinary interventions that address both mental and physical health needs [131]. As amply demonstrated the relationship between NEET status and mental disorders may therefore be bi-directional: young NEETs are at greater risk of developing mental illness and addictions, however, on the other hand, adolescents and young adults who have been diagnosed with pathologies of psychiatric interest or who present symptoms attributable to this sphere, may have an increased likelihood of becoming NEET [132-136]. Furthermore, young people who are not in education, employment or training do not acquire social skills and do not create social bonds; this makes them at greater risk of social exclusion (up to the possible Hikikomori phenomenon) but also exposes them to exclusion from the labor market, with possible future poverty or economic difficulty [137, 138].

3.1.7. Non-Suicidal Self-Injury, Self-Harm and Suicide

Self-harm and suicide remain a worldwide major public health problem among adolescents and young adults [139, 140]. Suicide stands as the second leading cause of death among young people worldwide, and in this cohort, increased rates of self-harm have been reported in recent years in several countries [141]. The World Health Organization (WHO) has estimated that

self-harm causes 256 180 deaths globally per year among youth and young adults 10-29 years [136]. Recent research has shown that key social contexts (such as family, school, and peer contexts) have important influences on behaviors maintained by adolescents, and many negative experiences resulting from conflict, victimization, and isolation are associated with suicidal and self-injurious behaviors. [142]. The perfectionism demanded by society and its expressions, including social media, can intensify the sense of defeat when an interpersonal crisis occurs and, at the same time, can foster episodes of self-harm [143]. This concept turns out to be particularly applicable to adolescents and young adults, who exhibit both biological and cognitive immaturity, which makes them more likely than adults to experience personal crises and enact impulsive behaviors more frequently [144, 145]. Indeed, while the world of social media has created numerous opportunities for everyone, including teenagers, it has also made all of society more exposed to the power of others' judgment [143]. Recent studies have highlighted how social media can be a tool to harass, discriminate and infringe on the rights of individuals [146, 147]. Some research even suggests that the use of social media may be a contributing element to the significant increase, found in the last decade, in suicide and self-harm rates among adolescents [148]. Social media has certainly provided an opportunity for the new generation to interconnect with each other and alleviate the sense of inadequacy and not belonging in the world, however, it is from these social media that phenomena such as death challenges, of which the Blue Whale challenge and the Blackout challenge are the most obvious examples, were born and spread [149-151]. The Blue Whale challenge was born in Russia in 2013 as a social media challenge that encourages teens and young adults to enact, in 50 days, 50 different tasks that are ordered by a "curator." The difficulty of these tasks gradually increases from life-threatening actions (such as carving a whale on skin with a sharp object, climbing buildings or protracted sleep deprivation), to suicide of the player, who must jump from the roof of the tallest building of the city [152]. In the Blackout challenge, also known as Choking Game, forced asphyxiation, achieved by applying pressure on the neck with the use of hands or ligatures, is used for creating the sensation of getting high without taking any drugs. Participants describe a brief feeling of euphoria before loss of consciousness, caused by reduced blood flow to the brain [153]. Participants are often recorded, and videos of this challenge are easily

found on various social media (such as TikTok,YouTube or Instagram). The risks of this practice may include bruising, short-term memory loss, seizures, concussions, retinal hemorrhage, stroke, brain damage, and brain death. In addition, several reports have been published describing cases of unintentional deaths due to this challenge [154, 155]. Recently, another troubling form of digital behavior has emerged among adolescents. Digital self-harm (DSH) involves using digital platforms to send hateful, abusive or disparaging messages or comments to oneself via fake or anonymous profiles, present oneself as a target for interpersonal aggression or pose as a victim of cyberbullying [156]. DSH is clearly a form of self-injury that is, however, extrinsic using a web-mediated mode. Some researchers refer to this phenomenon using the term "Digital Munchausen," finding an analogy with Munchausen syndrome [157]. The motivations underlying this phenomenon are not yet well understood; however, a number of possible explanations have been found. It would seem that adolescents who implement DSH want to demonstrate to their peers the ability to resist external attacks and, at the same time, want to elicit reactions from friends and family members, such as reactions of caring or sympathy [156] [158]. Furthermore, Patchin and Hinduja [159] found that DSH practice was more common among adolescents who had experienced bullying, depression or self-harm offline, demonstrating that this behavior may represent the manifestation of depressive symptoms or self-hate thoughts, or the extreme attempt to alleviate them.

3.2. Management and Treatment

Given the impact of youth mental health disorders and the possible derived medium- and long-term consequences, it is essential to early identify and implement effective interventions. The emergence of new psychopathological trajectories and disorders led clinicians to the need to promptly adapt the tools used to prevent and treat them [160]. It is certainly true that many of the themes addressed cannot find adequate management only in psychopharmacological treatment or psychotherapy because they require interventions that are able to give adolescents both prevention and management tools to treat arising discomforts mediated by social media and pressures social determinants [161]. For instance, the problem of youth not in education, employment or training (NEET) represents a clear example. In fact, employment and economic independence are essential for all young people. Tackling youth unemployment requires investment and job creation initiatives. Obviously, all of this also passes through investments in education, professional training, support for small and medium-sized enterprises and the provision of microcredits [162]. Various programs can be created with the aim to integrate young NEETs into the society. For example, the NEXT STEP program proposed by the Government of Denmark, combines four components [163]: a) fixed boundaries; b) body and physical activity (which include Team sports, green exercise, introduction to local sports clubs, and individual exercise goals); c) social relations and network (which includes participation in city events, volunteering and networking); d) life skills and the future (which includes creating a plan for the future, clarifying work and professional goals) [163]. When necessary, it is essential that adolescents and young adults receive support from a therapist; treating adolescents has always been a challenge for therapists because, compared to adults, adolescents expect the therapist to be less formal, less hierarchical and that a relationship is created that is as close to a friendship as possible [163-164]. Furthermore, often the treatment of young people must pass through the treatment of the family, which must be adequately involved [164].

Indeed, the treatment of digital addiction as well as non-suicidal self- injury (NSSI) is based on psychotherapeutic and psychoeducational interventions that are able to give young people the tools and skills necessary to manage emotional dysregulation, anxiety, a sense of emptiness, and hopelessness. The results of a recent review showed that the treatment of Digital Addiction in adolescents and young adults mainly requires Cognitive-Behavioral therapies (CBT) or CBT-based interventions, which are able to improve self-control, anxiety, depression and addiction-related frustration [165]. Secondly, some family-based interventions aimed at strengthening family functions and relationships, showed to be effective [166]. Family therapy aims to improve communication and relationships between parents and children by redirecting young people's psychological needs from digital activities to family interactions [166]. Finally, digital-based interventions, such as interventions based on websites, applications, and virtual reality, appear to be promising in adolescent digital addiction interventions [165]. Generally, digital intervention appears very promising in dealing with various forms of adolescent discomfort. Digital intervention may indeed display several advantages. Firstly, digital interventions

could have a better availability which is usually associated with lower costs. Secondly, they could be more accessible: digital intervention is convenient to access, regardless of time, place or number of participants. Furthermore, digital interventions could be better individualized, through an adaptation of treatment programs to specific populations and individual needs [167]. Furthermore, it is essential to develop interventions to support adolescents presenting with NSSI to stop this behavior which is an important predictor of suicidal risk [168]. However, only a few targeted interventions have been developed [169]. NSSI, particularly in the context of emotion dysregulation disorder and an emerging borderline personality disorder, is treated with Dialectical Behavior Therapy for adolescents (DBT-A), which has been shown to be effective [170]. Other treatments that are effective for reducing the frequency of NSSI are mentalization-based treatment for adolescents (MBT-A) and cognitive behavioral therapy (CBT) [171, 172].

Social withdrawal, which represents an ever growing problem, certainly requires interventions involving young people but also their family members. Considering the nature of social withdrawal and the hikikomori phenomenon, it is certainly difficult to engage young people with social withdrawal in some type of intervention [87]. Preventive interventions and early interventions are certainly the most appropriate. Therefore, the interventions implemented in the middle school or high school are fundamental and start with a correct identification of the subjects who present difficulties in social integration make use of tools such as the 25-item Hikikomori Questionnaire and the Hikikomori Risk Inventory [173]. Interventions may include individual, or group psychotherapy aimed at exploring and addressing the underlying causes of social withdrawal and helping individuals develop social skills and manage anxiety and depression. It is also important to involve the family in the intervention, providing emotional support and strategies to facilitate social rehabilitation and for this reason home visitation programs have been developed. [174]. Some hikikomori recovery programs focus on a step-by-step approach to social reintegration, providing structured support to help individuals overcome emotional and social barriers. These programs may include recreational activities, vocational training, and job search assistance [175].

LGBTQ+ individuals exhibit lower levels of psychological well-being than the general population [123, 176]. It is clear that actions are needed to counter discrimination against members of the LGBTQ+ community as well as actions to promote full work, school and social inclusion [177]. In this context, psychotherapy makes sense if it targets any stressors that arise from the internalization of negative societal attitudes, attributions, and experiences of prejudice [178]. RISE (Releasing Internalized Stigma for Empowerment) interventions are formed by interactive modules, delivered online, designed to challenge maladaptive stereotyped beliefs, raise awareness of social criticism, identify adaptive coping strategies for rejecting prejudices [179]. Interventions based on CBT have also been developed and can help sexual and gender minority youths to improve their mood and coping skills by teaching them how to identify, challenge and change maladaptive thoughts, beliefs and behaviors [180].

Finally, alexithymia, constituting a transdiagnostic risk factor for several psychiatric conditions, has proved to be an element with an impact on the daily life of young people [181]. For the adequate treatment of alexithymia, interventions based on the identification of one's own emotions and on communicating them to others have proven to be effective [182]. Some of these interventions can be delivered in groups or can involve parents; this can facilitate the exposure of alexithymic young people and their social integration [183-185]. In many of the interventions, an attempt is made to present emotions through role-playing or the observation of facial expressions; all this teaches to learn to read the emotions of others, identify feelings or bodily sensations and practical exercises of emotional experience [182] Researchers have suggested that DBT-based interventions could also help individuals with high levels of alexithymia particularly in improving emotion identification and awareness [186].

Overall, studies evaluating mental health interventions among adolescents have been reported To be highly heterogeneous in their population, interventions, and outcomes. Further studies should be implemented in order to implement interventions more standardized by population characteristics (such as age, gender, socioeconomic status, geographic origin) and tailored to youth needs, since the impact of mental health interventions could vary according to various contextual factors.

Table **1** provides a summary of treatments for the management of new emerging psychopathological entities.

Table 1:   Management and Treatment of New Emerging Psychopathological Entities of Liquid Generation

Psychopathological Entity	Management and Treatment		
NEETs	·	Psycho-education [162]	
	·	Social relations and network including social skills training groups [163]	
	·	Body and physical activity [163]	
Digital addictions	·	Cognitive-behavioral therapy [165]	
	·	Family-based interventions [166]	
	·	Digital-based interventions [165]	
NSSI	·	Dialectical behavior therapy for adolescents [170]	
	·	Mentalization-based treatment for adolescents [171]	
	·	Cognitive-behavioral therapy [172]	
Social withdrawal and Hikikomori	·	Cognitive-behavioral therapy [174]	
	·	Family-based interventions [174]	
	·	Group psychotherapy [174]	
LGBTQ+ individuals' maladaptive thoughts, beliefs and behaviors	·	Online-delivered interactive modules [179]	
	·	Cognitive-behavioral therapy [180]	
Alexithymia	·	Family-based interventions [183]	
	·	Dialectical behavior therapy for adolescents [186]	

4. DISCUSSION

The liquid society presents a unique set of challenges for the youth generation, which can significantly contribute to new forms of psychopathology and psychological distress. The fluid and unpredictable nature of the liquid society can create challenges for the development of a stable identity and sense of self, which in association with the widespread use of digital technologies and social media can indeed exacerbate these challenges by contributing to issues such as addiction and social comparison [165, 187].

The narrative synthesis of the included articles revealed several key themes related to the link between the challenges of navigating a liquid society and the development of psychological distress and mental health issues in the youth generation. The emergence of new qualitatively clinical courses of mental disorders in young people is a complex issue that is shaped by a range of social and cultural factors, including the fluid and rapidly changing nature of modern society. In a world that values instant gratification and excitement, young people may be more likely to be engaged in behaviors that provide a sense of stimulation and validation, such as seeking attention on social media and engaging in risky behaviors [188, 189]. Another factor contributing to the emergence of new psychopathological trajectories is the changing nature of gender identity and

expectations. As traditional gender roles and expectations become destabilized and uncertain, young people may struggle to find a sense of identity and purpose. This can be particularly challenging for those who identify as non-binary, transgender, or gender non-conforming, who may face discrimination, stigma, and marginalization. Addressing these issues requires promoting social inclusion, reducing stigma and discrimination, and improving access to healthcare and support services [113, 114, 116]. Gender identity is a complex and multifaceted concept that is influenced by many factors, including cultural and societal norms. In the context of liquid modernity, gender identity can be particularly fluid and malleable, as traditional gender roles and expectations have become destabilized and uncertain. However, the fluidity and uncertainty of gender identity can also create challenges and conflicts, particularly for those who do not conform to traditional gender norms. Discrimination, stigma, and marginalization continue to be significant issues for many individuals who identify as non-binary, transgender, or gender non-conforming [113, 122]. Moreover, the changing nature of work and education can also contribute to the emergence of new ways in which mental health issues can evolve among young people. In a world that places a strong emphasis on individualism and self-reliance, young people may struggle to find stable employment or educational opportunities, which can contribute to feelings of isolation and disconnection. This can be particularly challenging for those who are not in education,

employment or training (NEET), who may face additional barriers to accessing education and employment opportunities [126]. Furthermore, the fluid and rapidly changing nature of modern society can contribute to emotional regulation difficulties, such as alexithymia, and to the development of digital addictions, such as excessive smartphone and social media use. These issues can be particularly challenging for young people who are still developing their emotional regulation skills and may be more vulnerable to the negative impacts of digital technologies [103]. Finally, in cultures that place a strong emphasis on emotional expression and communication, individuals who struggle with alexithymia may feel stigmatized for their emotional difficulties and experience social isolation as a result. On the other hand, in cultures that value emotional restraint and stoicism, individuals with alexithymia may be more socially accepted, but may also experience challenges in recognizing and expressing their emotions. Social factors such as social support also play a role in the development and expression of alexithymia. Low levels of social support have been found to be associated with higher levels of alexithymia, suggesting that social isolation and lack of social support may contribute to emotional regulation difficulties [190]. The emphasis on individualism and self-reliance in liquid modernity may contribute to feelings of isolation and loneliness, particularly among vulnerable populations such as youth and marginalized groups. Self-harm, defined as deliberate and non-suicidal acts of self-injury, may serve as a way to cope with these feelings of social isolation and disconnection, providing a sense of control and emotional release [141].

Identifying new manifestations of psychological distress could be a challenge for clinicians: new diagnostic tools, or a revision of existing diagnostic tools, may prove useful in this regard. In fact, there are recently developed psychometric tools for assessing hikikomori, such as the Hikikomori Behavior Checklist [191] and the NEET/Hikikomori Risk Scale [192], not always translated and validated in any country. In addition, despite the Hikikomori Questionnaire (HQ-25) being the only instrument based on a widely accepted theoretical definition of hikikomori, it has been validated and translated only in a few countries. It is a 25-item scale that assesses socialization, isolation, and emotional support [174]. The HQ-25 has demonstrated good psychometric properties in studies of clinical patients and community individuals [193]. Moreover, since the 1990s, TAS (Toronto Alexithymia Scale-20)

represents the most widely used measurement tool for alexithymia, even though it displays several psychometric issues, particularly with internal validity and some of its subscales do not adequately measure the facets that composed alexithymia [194]. Recently, in order to better identify these three facets, namely difficulty in identifying feelings (DIF), difficulty in describing feelings (DDF), and externally oriented-thinking style (EOT), the Perth Alexithymia Questionnaire (PAQ), a 24 items self-report measure, was developed [195]. PAQ has strong psychometric properties as a measure of alexithymia and high internal consistency reliability [195]. There are several validated scales for diagnosing digital addiction in the literature: Digital Addiction Scale for Children (DASC) [196], Game Addiction Scale for Adolescents (GASA) [197], and Video Game Addiction Scale for Children (VASC) [198]. So far, there is no general consensus on which scale is best to use, and they have not yet fully entered clinical practice, being used primarily for research purposes. The use of these scales could allow early and rapid screening, even in the school setting, of those subjects at risk for digital addiction who would need further clinical and diagnostic investigation [197]. With the goal of understanding and measuring gender in an inclusive way to support transgender health services, and gender affirming medical interventions, McGuire and colleagues (2019) developed the Genderqueer Identity (GQI) Scale. GQI partially fills critical gaps in gender measurement, including the ability to evaluate multiple dimensions of gender identity and to assess gender identity over time [199]. GQI allows for an evaluation of the variability in genderqueer identity, including non-binary identity, socially constructed versus essentialist gender, awareness of gender concepts, and gender fluidity [199]. In order to assess nonsuicidal self-harm (NSSI) among adolescents and fill an existing gap among NSSI screening measures, the Self-harm Screening Inventory (SHSI) for adolescents was recently developed [200]. SHSI was developed on the heels of measurement tools previously used in the adult population such as the Deliberate Self-harm Inventory (DSHI) [200]. The SHSI is made up of 10 binary elements (yes/no) which investigate whether the subject has engaged in self-harming behavior in the last year [200]. It is clear that tools such as questionnaires or semi-structured interviews can be useful for clinicians in the screening and diagnostic process; however their use must necessarily be correlated with a careful clinical evaluation of the youths [66].

Overall, addressing these new psychopathologies requires a multi-faceted approach that includes promoting social inclusion, reducing stigma and discrimination, improving access to healthcare and support services, and addressing underlying societal problems. This may include interventions that focus on building resilience and coping skills, as well as those that address the structural and systemic factors that contribute to the emergence of new psychopathological trajectories among young people. By working together to address these challenges, we can create a more supportive and resilient society that promotes well-being and positive mental health outcomes for all [190]. It is important to acknowledge the potential limitations of the methodology used in the article. We did not follow a systematic process for selecting and evaluating studies, which can lead to biases in the selection of studies and the interpretation of their findings. Finally, the methodology used in the article may be difficult to replicate or update. To overcome the limitations of this review it is possible to involve a comprehensive search of the literature and a systematic review can help to minimize bias and provide a more comprehensive overview of the literature. Following a group of participants over time to track changes in outcomes of interest can provide a more comprehensive understanding of the development and trajectory of mental health issues, and can help to identify risk and protective factors that influence outcomes.

5. CONCLUSIONS

Adolescents experience various types of difficulties that have a significant impact on daily functioning related to the emotional and behavioral domains. On the one hand, these difficulties constitute a form of psychological distress that cannot be captured by traditional psychiatric diagnostic systems; on the other hand, these problems develop at such a sensitive time as adolescence, they need to be recognized and adequately treated in order to avoid long-term consequences. The clinical and psychopathological characterization of current youth psychopathology could address clinicians in developing new tailored approaches to prevention, intervention, and treatment. Adolescent adjustment problems and clinically significant alterations can be minimized through prevention programs, such as improving prosocial skills and reducing risky behaviors through school-based interventions. A more dimensional diagnostic approach can capture those behavioral and emotional aspects that may represent mental distress, which in turn may

not meet the diagnostic criteria of current categorical diagnoses. It is clear, therefore, that the treatment of these disorders cannot be exclusively pharmacological, but must make use of other types of tools that are usable and practical, which can certainly be provided by behavioral psychotherapy, and which is directed not only at the adolescents but also at the affective reference figures. A better investigation and understanding of the link between the liquid society and its influence on the emergence of new psychopathological patterns and mental health pathways, could potentially help in clearly identifying those postmodern social determinants that are currently contributing to the onset of youth psychopathology. Future longitudinal studies are needed to verify the effectiveness of cutting-edge treatments and monitor the stability of these new psychopathological frames over time.

REFERENCES

[1]   Bauman Z. Liquid life. Cambridge: Polity Press; 2005

[2]   Palese E. Zygmunt Bauman. Individual and society in the liquid modernity Springerplus 2013; 2(1): 191.
https://doi.org/10.1186/2193-1801-2-191

[3]   Hall JA, Liu D. Social media use, social displacement, and well-being Curr Opin Psychol 2022; 46: 101339.
https://doi.org/10.1016/j.copsyc.2022.101339

[4]   De Felice S, Hamilton AFC, Ponari M, Vigliocco G. Learning from others is good, with others is better: the role of social interaction in human acquisition of new knowledge. Philos Trans R Soc Lond B Biol Sci 2023; 13; 378(1870): 20210357.
https://doi.org/10.1098/rstb.2021.0357

[5]   The Lancet Child Adolescent Health. Growing up in a digital world: benefits and risks. Lancet Child Adolesc Health 2018; 2(2): 79.
https://doi.org/10.1016/S2352-4642(18)30002-6

[6]   Luo Y. New connectivity in the fragmented world. J Int Bus Stud 2022; 53(5): 962-980.
https://doi.org/10.1057/s41267-022-00530-w

[7]   Pastor LM, García Cuadrado JÁ. Modernity and postmodernity in the genesis of transhumanism-posthumanism. Cuad Bioet 2014; 25(85): 335-50

[8]   Bauman Z. Liquid life. Polity 2005.

[9]   Pinto da Costa M, Dixon LB. Global Mental Health. Psychiatr Serv 2023; 74(5): 559-560.
https://doi.org/10.1176/appi.ps.23074009

[10]   Thachil A. A new approach to global mental health action. Int J Soc Psychiatry 2023; 69(1): 235-236.
https://doi.org/10.1177/00207640221115327

[11]   Pinsker J. Oh No, They've Come Up With Another Generation Label. The Atlantic. 2020.

[12]   Mao P, Wang L, Tan M, Xie W, Luo A, Guo J. Mental health status of adolescents with adverse childhood experience and the influencing factors. Zhong Nan Da Xue Xue Bao Yi Xue Ban 2021; 46(11): 1298-1305.

[13]   Li Z, Sturge-Apple ML, Davies PT. Family instability, parenting, and child externalizing problems: Moderation by maternal sympathetic stress reactivity. Dev Psychopathol 2022; 18: 1-13.
https://doi.org/10.1017/S095457942200058X

[14]   Robidoux H, Ellington E, Lauerer J. Screen Time: The Impact of Digital Technology on Children and Strategies in Care. J Psychosoc Nurs Ment Health Serv. 2019; 57(11): 15-20.
https://doi.org/10.3928/02793695-20191016-04

[15]   Roussel-Ouellet J, Beaulieu D, Vézina-Im LA, Turcotte S, Labbé V, Bouchard D. Psychosocial Correlates of Recreational Screen Time among Adolescents. Int J Environ Res Public Health. 2022; 19(24): 16719.
https://doi.org/10.3390/ijerph192416719

[16]   Major, L, Francis, Tsapali, M. The effectiveness of technology-supported personalized learning in low- and middle-income countries: A meta-analysis. British Journal of Educational Technology 2021; 52, 1935-1964
https://doi.org/10.1111/bjet.13116

[17]   Becton JB, Walker HJ, Jones-Farmer A. Generational Differences in Workplace Behavior. Journal of Applied Social Psychology 2014; 44(3): 175-189.
https://doi.org/10.1111/jasp.12208

[18]   McKnight K. The first generation of true digital natives. Research World 2018; 14-17.
https://doi.org/10.1002/rwm3.20659

[19]   Borca G, Bina M, Keller P, Gilbert L, Begotti T. Internet use and developmental tasks: Adolescents' point of view. Computers in Human Behavior 2015; 52: 49-58
https://doi.org/10.1016/j.chb.2015.05.029

[20]   Booker, Cara L, Kelly Y, Sacker A. Gender differences in the associations between age trends of social media interaction and well-being among 10-15 year olds in the UK. BMC Public Health 2018; 18 (1): 321.
https://doi.org/10.1186/s12889-018-5220-4

[21]   Singleton A, Rasmussen M L, Halafoff A, Bouma G D. Australia's Generation Z Study: Australia's Teenagers Negotiating Religion, Sexuality and Diversity. Project Report 2019; ANU: Deakin and Monash Universities

[22]   Bennett W L. The Personalization of Politics: Political Identity, Social Media, and Changing Patterns of Participation. The ANNALS of the American Academy of Political and Social Science 2012; 644(1), 20-39.
https://doi.org/10.1177/0002716212451428

[23]   Shorey S, Chan V, Rajendran P, Ang E. Learning styles, preferences and needs of generation Z healthcare students: Scoping review. Nurse Educ Pract 2021; 57: 103247.
https://doi.org/10.1016/j.nepr.2021.103247

[24]   Shatto B, Erwin K. Teaching Millennials and Generation Z: bridging the generational divide. Creat Nurs 2017; 23(1): 24-28
https://doi.org/10.1891/1078-4535.23.1.24

[25]   Grelle K, Shrestha N, Ximenes M, Perrotte J, Cordaro M, Deason RG, Howard K. The Generation Gap Revisited: Generational Differences in Mental Health, Maladaptive Coping Behaviors, and Pandemic-Related Concerns During the Initial COVID-19 Pandemic. J Adult Dev 2023; 16: 1-12.
https://doi.org/10.1007/s10804-023-09442-x

[26]   Talmon GA. Generation Z: What's Next? Med Sci Educ 2019; 29: 9-11.
https://doi.org/10.1007/s40670-019-00796-0

[27]   Aikat D, Schulz J, Robinson L, Khilnani A, Baldwin J, Pait H, Williams AA, Davis J, Ignatow G. Millennials Usher a Post-Digital Era: Theorizing how Generation Y Engages with Digital Media. Emerald Publishing Limited 2019; 9-29.
https://doi.org/10.1108/S2050-206020190000019002

[28]   Sherber N. The Millennial Mindset. J Drugs Dermatol 2018; 17(12): 1340-1342

[29]   Oksa R, Saari T, Kaakinen M, Oksanen A. The Motivations for and Well-Being Implications of Social Media Use at Work among Millennials and Members of Former Generations. Int J Environ Res Public Health 2021; 18(2): 803.
https://doi.org/10.3390/ijerph18020803

[30]   Santos CE, VanDaalen RA. The associations of sexual and ethnic-racial identity commitment, conflicts in allegiances, and mental health among lesbian, gay, and bisexual racial and ethnic minority adults. J Couns Psychol 2016; 63(6): 668-676.
https://doi.org/10.1037/cou0000170

[31]   Becton JB, Walker HJ, Jones-Farmer A. Generational Differences in Workplace Behavior. Journal of Applied Social Psychology 2014; 44(3): 175-189.
https://doi.org/10.1111/jasp.12208

[32]   Myers KK, Sadaghiani K. Millennials in the Workplace: A Communication Perspective on Millennials' Organizational Relationships and Performance. J Bus Psychol 2010; 25(2): 225-238.
https://doi.org/10.1007/s10869-010-9172-7

[33]   Sherber N. The Millennial Mindset. J Drugs Dermatol 2018; 17(12): 1340-1342

[34]   Gray SG, Raimi KT, Wilson R, Árvai J. Will Millennials save the world? The effect of age and generational differences on environmental concern. J Environ Manage 2019; 242: 394-402.
https://doi.org/10.1016/j.jenvman.2019.04.071

[35]   Scheling L, Richter D. Generation Y: Do millennials need a partner to be happy? J Adolesc. 2021; 90: 23-31.
https://doi.org/10.1016/j.adolescence.2021.05.006

[36]   McCrindle M, Wolfinger E. Generations defined. In: The ABC of XYZ: Understanding the Global Generations. Sydney: University of New South Wales Press 2009; pp. 1-22

[37]   Mahmoud AB, Reisel WD, Fuxman L, Mohr I. A motivational standpoint of job insecurity effects on organizational citizenship behaviors: A generational study. Scand J Psychol 2021; 62(2): 267-275.
https://doi.org/10.1111/sjop.12689

[38]   Betz CL. Generations X, Y, and Z. J Pediatr Nurs 2019; 44: A7-A8.
https://doi.org/10.1016/j.pedn.2018.12.013

[39]   Taylor A N, Kurz C, Guerrier J. Gen X's Unconventional Approach To Sex, Friendship and Family. Viacom International Insights 2016

[40]   Calvo-Porral C, Pesqueira-Sanchez R. Generational differences in technology behavior: comparing millennials and Generation X, Kybernetes 2020; Vol. 49 No. 11, pp. 2755-2772
https://doi.org/10.1108/K-09-2019-0598

[41]   Sempa F. Geopolitics: From the Cold War to the 21st Century. Routledge 2017
https://doi.org/10.4324/9780203790816

[42]   Haymes S, Vidal de Haymes M, Miller R. The Routledge Handbook of Poverty in the United States. London: Routledge 2015.
https://doi.org/10.4324/9781315755519

[43]   Evans E. The Politics of Third Wave Feminisms: Neoliberalism, Intersectionality, and the State in Britain and the US. London: Palgrave Macmillan 2015.

[44]   Pak M S. Environmentalism Then and Now: From Fears to Opportunities, 1970−2010. Environmental Science & Technology 2011; 45 (1): 5-9.
https://doi.org/10.1021/es101424p

[45]   Weerarathne RS, Walpola MDCP, Piyasiri ADWD, Jayamal IAUM, Wijenayaka THPC, Pathirana GY. 'Leave or remain': intentions of Gen X and Y employees. Qual Quant 2023; 57(3): 2249-2268.
https://doi.org/10.1007/s11135-022-01456-z

[46]   LeRouge CM, Tao D, Ohs J, Lach HW, Jupka K, Wray R. Challenges and Opportunities with Empowering Baby Boomers for Personal Health Information Management Using Consumer Health Information Technologies: an Ecological Perspective. AIMS Public Health 2014; 1(3): 160-181.
https://doi.org/10.3934/publichealth.2014.3.160

[47]   Steel DM, Gray MA. Baby boomers' use and perception of recommended assistive technology: a systematic review.

Disabil Rehabil Assist Technol 2009; 4(3): 129-36.
https://doi.org/10.1080/17483100902767175

[48]   Lipschultz J, Hilt M, Reilly H. Organizing the baby boomer construct: An exploration of marketing, social systems, and culture. Educ Gerontol 2007; 33: 759-773
https://doi.org/10.1080/03601270701364511

[49]   Fingerman KL, Pillemer KA, Silverstein M, Suitor JJ. The Baby Boomers' intergenerational relationships. Gerontologist 2012 Apr; 52(2): 199-209.
https://doi.org/10.1093/geront/gnr139

[50]   Tyson T B. Robert F. Williams, 'Black Power,' and the Roots of the African American Freedom Struggle. Journal of American History 1998; 85 (2).
https://doi.org/10.2307/2567750

[51]   Spencer-Wood S M. Second-Wave Feminism. In The Wiley-Blackwell Encyclopedia of Social Theory 2017.
https://doi.org/10.1002/9781118430873.est0525

[52]   DeBenedetti C. An American Ordeal: The Antiwar Movement of the Vietnam Era. Syracuse University Press 1990.

[53]   Tunney O, Henkens K, van Solinge H. Children of the Revolution: The Impact of 1960s and 1970s Cultural Identification on Baby Boomers' Views on Retirement. Res Aging 2022; 44(9-10): 747-757.
https://doi.org/10.1177/01640275211068456

[54]   Roy S, Ayalon L. Intergenerational Relations in the Climate Movement: Bridging the Gap toward a Common Goal. Int J Environ Res Public Health 2022; 20(1): 233.
https://doi.org/10.3390/ijerph20010233

[55]   Aldi G. Restless Adolescence and Psychopathology: Between New Ways of Being and New Psychiatric Psychopathologies. Psychiatr Danub 2021; 33: 30-34.

[56]   Ferri P. Nativi digitali. Milano: Bruno Mondadori 2011.

[57]   Bhugra D, Gupta S, Schouler-Ocak M, *et al.* European Psychiatric Association. EPA guidance mental health care of migrants. Eur Psychiatry 2014; 29: 107-15.
https://doi.org/10.1016/j.eurpsy.2014.01.003

[58]   Christodoulou NG, Christodoulou GN. Financial crises: impact on mental health and suggested responses. Psychotherapy and psychosomatics 2013; 82: 279-84
https://doi.org/10.1159/000351268

[59]   Palenzuela-Luis N, Duarte-Clíments G, Gómez-Salgado J, Rodríguez-Gómez JÁ, Sánchez-Gómez MB. International Comparison of Self-Concept, Self-Perception and Lifestyle in Adolescents: A Systematic Review. Int J Public Health 2022 29; 67: 1604954.
https://doi.org/10.3389/ijph.2022.1604954

[60]   Sebastian C, Burnett S, Blakemore SJ. Development of the self-concept during adolescence. Trends Cogn Sci 2008; 12(11): 441-6.
https://doi.org/10.1016/j.tics.2008.07.008

[61]   Feldmann J, Middleman AB. Adolescent sexuality and sexual behavior. Curr Opin Obstet Gynecol 2002; 14(5): 489-93.
https://doi.org/10.1097/00001703-200210000-00008

[62]   Jarman HK, Slater A, McLean SA, Marques MD, Paxton SJ. The impact of completing body image assessments on adolescents' body image and engagement in body change strategies: Harmful or harmless? Body Image 2021; 39: 131-138.
https://doi.org/10.1016/j.bodyim.2021.07.003

[63]   Poznyak E, Morosan L, Perroud N, Speranza M, Badoud D, Debbané M. Roles of age, gender and psychological difficulties in adolescent mentalizing. J Adolesc 2019l; 74: 120-129.
https://doi.org/10.1016/j.adolescence.2019.06.007

[64]   Merten EC, Cwik JC, Margraf J, Schneider S. Overdiagnosis of mental disorders in children and adolescents in developed countries. Child Adolesc Psychiatry Ment Health 2017; 11: 5.
https://doi.org/10.1186/s13034-016-0140-5

[65]   Skokauskas N, Fung D, Flaherty LT, von Klitzing K, Pūras D, Servili C, Dua T, Falissard B, Vostanis P, Moyano MB, Feldman I, Clark C, Boričević V, Patton G, Leventhal B, Guerrero A. Shaping the future of child and adolescent psychiatry. Child Adolesc Psychiatry Ment Health 2019; 11: 13: 19.
https://doi.org/10.1186/s13034-019-0279-y

[66]   Domingues-Montanari S. Clinical and psychological effects of excessive screen time on children. J. Paediatr. Child Health 2017; 53, 333-338
https://doi.org/10.1111/jpc.13462

[67]   Weinstein A, Dorani D, Elhadif R, Bukovza Y, Yarmulnik A, Dannon P. Internet addiction is associated with social anxiety in young adults. Ann. Clin. Psychiatry 2015; 27, 4-9

[68]   Cheng C, Li A Y L. Internet addiction prevalence and quality of (real) life: A meta-analysis of 31 nations across seven world regions. Cyberpsychol Behav Soc Netw 2014; 17: 755-760
https://doi.org/10.1089/cyber.2014.0317

[69]   Cao F, Su L. Internet addiction among Chinese adolescents: Prevalence and psychological features. Child Care Health Dev 2007; 33: 275-281
https://doi.org/10.1111/j.1365-2214.2006.00715.x

[70]   Kabali H K, Irigoyen M M, Nunez-Davis R, Budacki J G, Mohanty S H, Leister K P. Exposure and use of mobile media devices by young children. Pediatrics 2015; 136, 1044-105
https://doi.org/10.1542/peds.2015-2151

[71]   Beyens I, Nathanson A I. Electronic media use and sleep among preschoolers: Evidence for time-shifted and less consolidated sleep. Health Commun 2019; 34, 537-544
https://doi.org/10.1080/10410236.2017.1422102

[72]   Kudchadkar SR, Carroll CL. Using Social Media for Rapid Information Dissemination in a Pandemic: #PedsICU and Coronavirus Disease 2019. Pediatr Crit Care Med 2020; 21(8): e538-e546.
https://doi.org/10.1097/PCC.0000000000002474

[73]   Bozzola E, Spina G, Agostiniani R, Barni S, Russo R, Scarpato E, Di Mauro A, Di Stefano AV, Caruso C, Corsello G, Staiano A. The Use of Social Media in Children and Adolescents: Scoping Review on the Potential Risks. Int J Environ Res Public Health 2022; 19(16): 9960.
https://doi.org/10.3390/ijerph19169960

[74]   Uncapher MR, Lin L, Rosen LD, Kirkorian HL, Baron NS, Bailey K, Cantor J, Strayer DL, Parsons TD, Wagner AD. Media Multitasking and Cognitive, Psychological, Neural, and Learning Differences. Pediatrics 2017; 140(Suppl 2): S62-S66.
https://doi.org/10.1542/peds.2016-1758D

[75]   Moisala M, Salmela V, Hietajärvi L, Salo E, Carlson S, Salonen O, Lonka K, Hakkarainen K, Salmela-Aro K, Alho K. Media multitasking is associated with distractibility and increased prefrontal activity in adolescents and young adults. Neuroimage 2016; 134: 113-121.
https://doi.org/10.1016/j.neuroimage.2016.04.011

[76]   Kononova A. Multitasking across borders: a cross-national study of media multitasking behaviors, its antecedents, and outcomes. Int J Commun 2013; 7: 1688-1710

[77]   Baumgartner SE, Lemmens JS, Weeda WD, Huizinga M. Measuring media multitasking: development of a short measure of media multitasking for adolescents. J Media Psychol 2016; 1-10
https://doi.org/10.1027/1864-1105/a000167

[78]   Uncapher MR, K Thieu M, Wagner AD. Media multitasking and memory: differences in working memory and long-term memory. Psychon Bull Rev 2016; 23(2): 483-490
https://doi.org/10.3758/s13423-015-0907-3

[79]   Keles B, McCrae N, Grealish A. A Systematic Review: The Influence of Social Media on Depression, Anxiety and Psychological Distress in Adolescents. Int J Adolesc Youth

2020; 25: 79-93.
https://doi.org/10.1080/02673843.2019.1590851

[80] Bozzola E, Spina G, Ruggiero M, Vecchio D, Caruso C, Bozzola M, Staiano AM, Agostiniani R, Del Vecchio A, Banderali G, Peroni D, Chiara A, Memo L, Turra R, Corsello G, Villani A. Media use during adolescence: the recommendations of the Italian Pediatric Society. Ital J Pediatr 2019; 45(1): 149.
https://doi.org/10.1186/s13052-019-0725-8

[81] Buda G., Lukoševičiūtė J., Šalčiūnaitė L., Šmigelskas K. Possible Effects of Social Media Use on Adolescent Health Behaviors and Perceptions. Psychol Rep 2021; 124: 1031-1048.
https://doi.org/10.1177/0033294120922481

[82] Twigg L., Duncan C., Weich S. Is Social Media Use Associated with Children's Well-Being? Results from the UK Household Longitudinal Study. J Adolesc 2020; 80: 73-83.
https://doi.org/10.1016/j.adolescence.2020.02.002

[83] Sümen A., Evgin D. Social Media Addiction in High School Students: A Cross-Sectional Study Examining Its Relationship with Sleep Quality and Psychological Problems. Child Indic Res 2021; 14: 2265-2283.
https://doi.org/10.1007/s12187-021-09838-9

[84] McNamee P, Mendolia S, Yerokhin O. Social Media Use and Emotional and Behavioural Outcomes in Adolescence: Evidence from British Longitudinal Data. Econ Hum Biol 2021; 41: 100992.
https://doi.org/10.1016/j.ehb.2021.100992

[85] Marino C, Lenzi M, Canale N, Pierannunzio D, Dalmasso P, Borraccino A, Cappello N, Lemma P, Vieno A. and the 2018 HBSC-Italia Group. Problematic social media use: Associations with health complaints among adolescents. Annali dell'Istituto Superiore di Sanità 2020; 56

[86] Muris P, Ollendick TH. Contemporary Hermits: A Developmental Psychopathology Account of Extreme Social Withdrawal (Hikikomori) in Young People. Clin Child Fam Psychol Rev 2023; 26(2): 459-481.
https://doi.org/10.1007/s10567-023-00425-8

[87] Neoh MJY, Carollo A, Lim M, Esposito G. Hikikomori: A Scientometric Review of 20 Years of Research. Int J Environ Res Public Health 2023; 20(9): 5657.
https://doi.org/10.3390/ijerph20095657

[88] Hamasaki Y, Nakayama T, Michikoshi S, Hikida T. Risk factors for severity of social withdrawal in adolescence: Understanding hikikomori as a spectrum. Eur Psychiatry 2021; 64(Suppl 1): S632-3.
https://doi.org/10.1192/j.eurpsy.2021.1682

[89] Hamasaki Y, Pionnié-Dax N, Dorard G, Tajan N, Hikida T. Identifying Social Withdrawal (Hikikomori) Factors in Adolescents: Understanding the Hikikomori Spectrum. Child Psychiatry Hum Dev 2021; 52(5): 808-817.
https://doi.org/10.1007/s10578-020-01064-8

[90] Pozza A, Coluccia A, Kato T, Gaetani M, Ferretti F. The 'Hikikomori' syndrome: worldwide prevalence and co-occurring major psychiatric disorders: a systematic review and meta-analysis protocol. BMJ Open 2019; 9(9): e025213.
https://doi.org/10.1136/bmjopen-2018-025213

[91] Eggum ND, Eisenberg N, Spinrad TL, Valiente C, Edwards A, Kupfer AS, Reiser M. Predictors of withdrawal: possible precursors of avoidant personality disorder. Dev Psychopathol 2009; 21(3): 815-38.
https://doi.org/10.1017/S0954579409000443

[92] Lin PKF, Andrew, Koh AHQ, Liew K. The relationship between Hikikomori risk factors and social withdrawal tendencies among emerging adults-An exploratory study of Hikikomori in Singapore. Front Psychiatry 2022; 13: 1065304.
https://doi.org/10.3389/fpsyt.2022.1065304

[93] Kato TA, Kanba S, Teo AR. Hikikomori: experience in Japan and international relevance. World Psychiatry 2018; 17: 105-

6.
https://doi.org/10.1002/wps.20497

[94] Orsolini L, Bellagamba S, Volpe U, Kato TA. Hikikomori and modern-type depression in Italy: A new phenotypical trans-cultural characterization?. Int J Soc Psychiatry. 2022; 68(5): 1010-1017.
https://doi:10.1177/00207640221099408

[95] Hogeveen J, Grafman J. Alexithymia. Handb Clin Neurol 2021; 183: 47-62.
https://doi.org/10.1016/B978-0-12-822290-4.00004-9

[96] Joukamaa M, Taanila A, Miettunen J, Karvonen JT, Koskinen M, Veijola J. Epidemiology of alexithymia among adolescents. J Psychosom Res 2007; 63(4): 373-6.
https://doi.org/10.1016/j.jpsychores.2007.01.018

[97] Wang X, Li X, Guo C, Hu Y, Xia L, Geng F, Sun F, Chen C, Wang J, Wen X, Luo X, Liu H. Prevalence and Correlates of Alexithymia and Its Relationship With Life Events in Chinese Adolescents With Depression During the COVID-19 Pandemic. Front Psychiatry 2021; 12: 774952.
https://doi.org/10.3389/fpsyt.2021.774952

[98] Hemming L, Haddock G, Shaw J, Pratt D. Alexithymia and Its Associations With Depression, Suicidality, and Aggression: An Overview of the Literature. Front Psychiatry 2019; 11: 0-203.
https://doi.org/10.3389/fpsyt.2019.00203

[99] Westwood H, Kerr-Gaffney J, Stahl D, Tchanturia K. Alexithymia in eating disorders: Systematic review and meta-analyses of studies using the Toronto Alexithymia Scale. J Psychosom Res 2017; 99: 66-81.
https://doi.org/10.1016/j.jpsychores.2017.06.007

[100] Kinnaird E, Stewart C, Tchanturia K. Investigating alexithymia in autism: A systematic review and meta-analysis. Eur Psychiatry 2019; 55: 80-89.
https://doi.org/10.1016/j.eurpsy.2018.09.004

[101] Loas G, Speranza M, Pham-Scottez A, Perez-Diaz F, Corcos M. Alexithymia in adolescents with borderline personality disorder. J Psychosom Res 2012; 72: 147-52.
https://doi.org/10.1016/j.jpsychores.2011.11.006

[102] Preece DA, Mehta A, Becerra R, Chen W, Allan A, Robinson K, Boyes M, Hasking P, Gross JJ. Why is alexithymia a risk factor for affective disorder symptoms? The role of emotion regulation. J Affect Disord 2022; 296: 337-341.
https://doi.org/10.1016/j.jad.2021.09.085

[103] Fanton S, Azevedo LC, Vargas DM. Alexithymia in obese adolescents is associated with severe obesity and binge eating behavior. J Pediatr 2022; 98(3): 264-269.
https://doi.org/10.1016/j.jped.2021.06.003

[104] Nowakowski ME, McFarlane T, Cassin S. Alexithymia and eating disorders: a critical review of the literature. J Eat Disord 2013.
https://doi.org/10.1186/2050-2974-1-21

[105] Shank LM, Tanofsky-Kraff M, Kelly NR, Jaramillo M, Rubin SG, Altman DR, Byrne ME, LeMay-Russell S, Schvey NA, Broadney MM, Brady SM, Yang SB, Courville AB, Ramirez S, Crist AC, Yanovski SZ, Yanovski JA. The association between alexithymia and eating behavior in children and adolescents. Appetite 2019; 142: 104381.
https://doi.org/10.1016/j.appet.2019.104381

[106] Van der Cruijsen R, Murphy J, Bird G. Alexithymic traits can explain the association between puberty and symptoms of depression and anxiety in adolescent females. PLoS One 2019; 14(1): e0210519.
https://doi.org/10.1371/journal.pone.0210519

[107] Sfärlea A, Dehning S, Keller LK, Schulte-Körne G. Alexithymia predicts maladaptive but not adaptive emotion regulation strategies in adolescent girls with anorexia nervosa or depression. J Eat Disord 2019; 7: 41.
https://doi.org/10.1186/s40337-019-0271-1

[108] Murphy J, Brewer R, Catmur C, Bird G. Interoception and psychopathology: A developmental neuroscience

perspective. Dev Cogn Neurosci 2017; 23: 45-56.
https://doi.org/10.1016/j.dcn.2016.12.006

[109] Murphy J, Catmur C, Bird G. Alexithymia is associated with a multidomain, multidimensional failure of interoception: Evidence from novel tests. J Exp Psychol 2018; 147(3): 398-408.
https://doi.org/10.1037/xge0000366

[110] Georgiou E, Mai S, Fernandez KC, Pollatos O. I see neither your Fear, nor your Sadness - Interoception in adolescents. Conscious Cogn 2018; 60: 52-61.
https://doi.org/10.1016/j.concog.2018.02.011

[111] Kekkonen V, Kraav SL, Hintikka J, Kivimäki P, Kaarre O, Tolmunen T. Stability of alexithymia is low from adolescence to young adulthood, and the consistency of alexithymia is associated with symptoms of depression and dissociation. J Psychosom Res 2021; 150: 110629.
https://doi.org/10.1016/j.jpsychores.2021.110629

[112] Griffin L, Clyde K, Byng R, Bewley S. Sex, gender and gender identity: a re-evaluation of the evidence. BJPsych Bull 2021; 45(5): 291-299.
https://doi.org/10.1192/bjb.2020.73

[113] Diamond LM. Gender Fluidity and Nonbinary Gender Identities Among Children and Adolescents. Child Dev Perspect 2020; 14: 110- 115.
https://doi.org/10.1111/cdep.12366

[114] Eymann A, Bellomo MM, Krauss M, Soto Pérez AR, Catsicaris C, Mulli V. Exploration of gender perceptions among adolescents. Arch Argent Pediatr 2022; 120(4): 240-247.
https://doi.org/10.5546/aap.2022.eng.240

[115] Marshal MP, Dietz LJ, Friedman MS, Stall R, Smith HA, McGinley J, Thoma BC, Murray PJ, D'Augelli AR, Brent DA. Suicidality and depression disparities between sexual minority and heterosexual youth: a meta-analytic review. J Adolesc Health 2011; 49(2): 115-23.
https://doi.org/10.1016/j.jadohealth.2011.02.005

[116] Surace T, Fusar-Poli L, Vozza L, Cavone V, Arcidiacono C, Mammano R, *et al*. Lifetime prevalence of suicidal ideation and suicidal behaviors in gender non-conforming youths: a meta-analysis. European Child & Adolescent Psychiatry 2020; 13: 1-5.
https://doi.org/10.1007/s00787-020-01508-5

[117] Jourian TJ. Evolving nature of sexual orientation and gender identity. New Directions for Student Services 2015; 152: 11-23
https://doi.org/10.1002/ss.20142

[118] Taylor PJ, Dhingra K, Dickson JM, McDermott E. Psychological correlates of self-harm within gay, lesbian and bisexual UK university students. Archives of suicide research 2018; 19.
https://doi.org/10.1080/13811118.2018.1515136

[119] Baams L, Grossman AH, Russell ST. Minority stress and mechanisms of risk for depression and suicidal ideation among lesbian, gay, and bisexual youth. Developmental Psychology 2015; 51(5): 688.
https://doi.org/10.1037/a0038994

[120] Caplan Z. The problem with square pegs: Sexual orientation concordance as a predictor of depressive symptoms. Soc Ment Health 2017; 7: 105-120.
https://doi.org/10.1177/2156869317701266

[121] Srivastava A, Hall WJ, Krueger EA, Goldbach JT. Sexual identity fluidity, identity management stress,and depression among sexual minority adolescents. Front. Psychol 2023; 13: 1075815.
https://doi.org/10.3389/fpsyg.2022.1075815

[122] Williams AJ, Jones C, Arcelus J, Townsend E, Lazaridou A, Michail M. A systematic review and meta-analysis of victimisation and mental health prevalence among LGBTQ+ young people with experiences of self-harm and suicide. PLoS One 2021; 22; 16(1): e0245268.

https://doi.org/10.1371/journal.pone.0245268

[123] Bulhões C, Ramos E, Severo M, Dias S, Barros H. Trajectories of depressive symptoms through adolescence and young adulthood: social and health outcomes. Eur Child Adolesc Psychiatry 2021; 30(1): 65-74.
https://doi.org/10.1007/s00787-020-01493-9

[124] Newcomb ME, Hill R, Buehler K, Ryan DT, Whitton SW, Mustanski B. High Burden of Mental Health Problems, Substance Use, Violence, and Related Psychosocial Factors in Transgender, Non-Binary, and Gender Diverse Youth and Young Adults. Arch Sex Behav. 2020; 49(2): 645-659.
https://doi.org/10.1007/s10508-019-01533-9

[125] Mitrou F, Haynes M, Perales F, Zubrick SR, Baxter J. Not in employment, education or training (NEET); more than a youth policy issue. Int J Popul Data Sci 2021; 6(1): 1676.
https://doi.org/10.23889/ijpds.v6i1.1676

[126] Tanton C, McDonagh L, Cabecinha M, Clifton S, Geary R, Rait G, Saunders J, Cassell J, Bonell C, Mitchell KR, Mercer CH. How does the sexual, physical and mental health of young adults not in education, employment or training (NEET) compare to workers and students? BMC Public Health 2021; 21(1): 412.
https://doi.org/10.1186/s12889-021-10229-6

[127] Hult M, Kaarakainen M, De Moortel D. Values, Health and Well-Being of Young Europeans Not in Employment, Education or Training (NEET). Int J Environ Res Public Health 2023; 9; 20(6): 4840.
https://doi.org/10.3390/ijerph20064840

[128] Parola A, Marcionetti J, Sica LS, Donsì L. The effects of a non-adaptive school-to-work transition on transition to adulthood, time perspective and internalizing and externalizing problems. Curr Psychol 2022; 7: 1-15.
https://doi.org/10.1007/s12144-022-03605-x

[129] OECD (2023), Youth not in employment, education or training (NEET) (indicator).
https://doi.org/10.1787/72d1033a-en

[130] Gariépy G, Danna SM, Hawke L, Henderson J, Iyer SN. The mental health of young people who are not in education, employment, or training: a systematic review and meta-analysis. Soc Psychiatry Psychiatr Epidemiol 2022; 57(6): 1107-1121.
https://doi.org/10.1007/s00127-021-02212-8

[131] Iyer S, Mustafa S, Gariépy G, Shah J, Joober R, Lepage M, Malla A. A NEET distinction: youths not in employment, education or training follow different pathways to illness and care in psychosis. Soc Psychiatry Psychiatr Epidemiol 2018; 53(12): 1401-1411.
https://doi.org/10.1007/s00127-018-1565-3

[132] Scott J, Fowler D, McGorry P, Birchwood M, Killackey E,Christensen H, Glozier N, Yung A, Power P, Nordentoft M. Adolescents and young adults who are not in employment,education, or training. Br Med J 2013; 347: f5270.
https://doi.org/10.1136/bmj.f5270

[133] Goldman-Mellor S, Caspi A, Arseneault L, Ajala N, Ambler A,Danese A, Fisher H, Hucker A, Odgers C, Williams T. Committed to work but vulnerable: self-perceptions and mental health in NEET 18-year olds from a contemporary British cohort. J Child Psychol Psychiatry 2016; 57(2): 196-203
https://doi.org/10.1111/jcpp.12459

[134] Plenty S, Magnusson C, Låftman SB. Internalising and externalizing problems during adolescence and the subsequent likelihood of being Not in Employment, Education or Training (NEET) among males and females: The mediating role of school performance. SSM Popul Health 2021; 15: 100873.
https://doi.org/10.1016/j.ssmph.2021.100873

[135] Haugland SH, Stea TH. Risky Lives? Self-Directed Violence and Violence From Others Among Young People Not in Education, Employment, or Training (NEET). Front Public

Health 2022; 10: 904458.
https://doi.org/10.3389/fpubh.2022.904458

[136] Bäckman O, Nilsson A. Long-term consequences of being not in employment, education or training as a young adult. Stability and change in three Swedish birth cohorts. Eur Soc. 2016; 18(2): 136-57
https://doi.org/10.1080/14616696.2016.1153699

[137] Furlong A. The zone of precarity and discourses of vulnerability. Journal of Social Sciences and Humanities 2007; 381: 101-21

[138] Hawton K, Saunders KE, O'Connor RC. Self-harm and suicide in adolescents. Lancet 2012; 379(9834): 2373-82.
https://doi.org/10.1016/S0140-6736(12)60322-5

[139] Hawton K, Bergen H, Waters K, Ness J, Cooper J, Steeg S, Kapur N. Epidemiology and nature of self-harm in children and adolescents: findings from the multicentre study of self-harm in England. Eur Child Adolesc Psychiatry 2012; 21(7): 369-77.
https://doi.org/10.1007/s00787-012-0269-6

[140] Griffin E, McMahon E. Adolescent mental health: Global data informing opportunities for prevention. EClinicalMedicine 2020; 24.
https://doi.org/10.1016/j.eclinm.2020.100413

[141] Kasen S, Chen H. Social context and change in suicide ideation in a community sample of youths. Soc Psychiatry Psychiatr Epidemiol 2020; 55: 319-327.
https://doi.org/10.1007/s00127-019-01772-0

[142] Gyori D, Balazs J. Nonsuicidal Self-Injury and Perfectionism: A Systematic Review. Front Psychiatry 2021; 12: 691147.
https://doi.org/10.3389/fpsyt.2021.691147

[143] Oquendo MA, Mann JJ. Suicidal Behavior: A Developmental Perspective. Psychiatr Clin North Am 2008; 31: 13-16.
https://doi.org/10.1016/j.psc.2008.03.001

[144] Stewart JG, Shields GS, Esposito EC, Cosby EA, Allen NB, Slavich GM, *et al*. Life Stress and Suicide in Adolescents. J Abnorm Child Psychol 2019; 47: 1707-1722.
https://doi.org/10.1007/s10802-019-00534-5

[145] Lawson CE. Platform vulnerabilities: harassment and misogynoir in the digital attack on Leslie Jones. Inf Commun Soc 2018; 21(6): 818-833
https://doi.org/10.1080/1369118X.2018.1437203

[146] Fritz N, Gonzales A. Privacy at the margins-not the normal trans story: negotiating trans narratives while crowdfunding at the margins. Int J Commun 2018; 12: 20

[147] Mitchell KJ, Wells M, Priebe G, Ybarra ML. Exposure to websites that encourage self-harm and suicide: prevalence rates and association with actual thoughts of self-harm and thoughts of suicide in the United States. J Adolesc 2014; 37(8): 1335-134
https://doi.org/10.1016/j.adolescence.2014.09.011

[148] House A. Social media, self-harm and suicide. BJPsych Bull. 2020 Aug; 44(4): 131-133. doi: 10.1192/bjb.2019.94
https://doi.org/10.1192/bjb.2019.94

[149] Khasawneh A, Chalil Madathil K, Dixon E, Wiśniewski P, Zinzow H, Roth R. Examining the Self-Harm and Suicide Contagion Effects of the Blue Whale Challenge on YouTube and Twitter: Qualitative Study. JMIR Ment Health 2020 5; 7(6): e15973.
https://doi.org/10.2196/15973

[150] Bernacki JM, Davies WH. Prevention of the Choking Game: parent perspectives. J Inj Violence Res 2012; 4(2): 73-8.
https://doi.org/10.5249/jivr.v4i2.119

[151] Lupariello F, Curti SM, Coppo E, Racalbuto SS, Di Vella G. Self-harm risk among adolescents and the phenomenon of the "Blue whale challenge": Case series and review of the literature? J Forensic Sci 2018.
https://doi.org/10.1111/1556-4029.13880

[152] Macnab AJ, Deevska M, Gagnon F, Cannon WG, Andrew T. Asphyxial games or "the choking game": a potentially fatal

risk behavior. Inj Prev 2009; 15(1): 45-9
https://doi.org/10.1136/ip.2008.018523

[153] Andrew TA, Fallon KK. Asphyxial games in children and adolescents. Am J Forensic Med Pathol. 2007; 28(4): 303-7
https://doi.org/10.1097/PAF.0b013e318148bdb2

[154] Egge MK, Berkowitz CD, Toms C, Sathyavagiswaran L. The choking game: a cause of unintentional strangulation. Pediatr Emerg Care; 2010; 26(3): 206-8
https://doi.org/10.1097/PEC.0b013e3181d1e3e3

[155] Soengkoeng R, Moustafa AA. Digital self-harm: an examination of the current literature with recommendations for future research. Discov Psychol 2022; 19.
https://doi.org/10.1007/s44202-022-00032-8

[156] Pulman A, Taylor J. Munchausen by internet: current research and future directions. J Med Internet Res 2012; 14(4): e115.
https://doi.org/10.2196/jmir.2011

[157] Erreygers S, Symons M, Vandebosch H, Pabian S. Fictitious online victimization: Exploration and creation of a measurement instrument. New Media & Society 2022; 24(1), 156-177.
https://doi.org/10.1177/1461444820960079

[158] Patchin JW, Hinduja S. DSH among adolescents. J Adolesc Health 2017; 61(6): 761-6.
https://doi.org/10.1016/j.jadohealth.2017.06.012

[159] Das JK, Salam RA, Lassi ZS, Khan MN, Mahmood W, Patel V, Bhutta ZA. Interventions for Adolescent Mental Health: An Overview of Systematic Reviews. J Adolesc Health 2016; 59: S49-S60.
https://doi.org/10.1016/j.jadohealth.2016.06.020

[160] Radez, J., Reardon, T., Creswell, C. *et al*. Why do children and adolescents (not) seek and access professional help for their mental health problems? A systematic review of quantitative and qualitative studies. Eur Child Adolesc Psychiatry 2021; 30: 183-211 (2021).
https://doi.org/10.1007/s00787-019-01469-4

[161] Apunyo R, White H, Otike C, Katairo T, Puerto S, Gardiner D, Kinengyere AA, Eyers J, Saran A, Obuku EA. Interventions to increase youth employment: An evidence and gap map. Campbell Syst Rev 2022 15; 18(1): e1216.
https://doi.org/10.1002/cl2.1216

[162] Høy TV, Jørgensen A, Andersen S. The development of a health-promoting employment intervention with physical activity for young people Not in Education, Employment or Training (NEET): NEXT STEP-on the path to education and job. Pilot Feasibility Stud 2022; 8: 229.
https://doi.org/10.1186/s40814-022-01174-1

[163] Everall RD and Paulson BL. The therapeutic alliance: adolescent perspectives. Counsel. Psychother Res 2002; 2: 78-87.
https://doi.org/10.1080/14733140212331384857

[164] Ding K, Li H. Digital Addiction Intervention for Children and Adolescents: A Scoping Review. Int J Environ Res Public Health 2023; 20(6): 4777.
https://doi.org/10.3390/ijerph20064777

[165] Torres-Rodriguez A, Griffiths M D, Carbonell X, Oberst U. Treatment efficacy of a specialized psychotherapy program for Internet Gaming Disorder. J. Behav. Addict. 2018; 7, 939-952
https://doi.org/10.1556/2006.7.2018.111

[166] Aboujaoude E, Gega L, Parish MB, Hilty DM. Editorial: Digital Interventions in Mental Health: Current Status and Future Directions. Front Psychiatry 2020; 11: 111.
https://doi.org/10.3389/fpsyt.2020.00111

[167] Hawton K, Saunders KE, O'Connor RC. Self-harm and suicide in adolescents. Lancet 2012; 379: 2373-82
https://doi.org/10.1016/S0140-6736(12)60322-5

[168] Washburn JJ, Richardt SL, Styer DM, Gebhardt M, Juzwin KR, Yourek A, Aldridge D. Psychotherapeutic approaches to non-suicidal self-injury in adolescents. Child Adolesc

Psychiatry Ment Health 2012; 6(1): 14.
https://doi.org/10.1186/1753-2000-6-14

[169]   Mehlum L, Tørmoen AJ, Ramberg M, Haga E, Diep LM, Laberg S, *et al*. Dialectical behavior therapy for adolescents with repeated suicidal and self-harming behavior: a randomized trial. J Am Acad Child Adolesc Psychiatry 2014; 53: 1082-91
https://doi.org/10.1016/j.jaac.2014.07.003

[170]   Ougrin D, Tranah T, Stahl D, Moran P, Asarnow JR. Therapeutic interventions for suicide attempts and self-harm in adolescents: systematic review and meta-analysis. J Am Acad Child Adolesc Psychiatry 2015; 54: 97-107.e2
https://doi.org/10.1016/j.jaac.2014.10.009

[171]   Rossouw TI, Fonagy P. Mentalization-based treatment for self-harm in adolescents: a randomized controlled trial. J Am Acad Child Adolesc Psychiatry 2012; 51: 1304-13
https://doi.org/10.1016/j.jaac.2012.09.018

[172]   Loscalzo Y, Nannicini C, Huai-Ching Liu IT, Giannini M. Hikikomori Risk Inventory (HRI-24): A new instrument for evaluating Hikikomori in both Eastern and Western countries. Int J Soc Psychiatry 2022; 68(1): 90-107.
https://doi.org/10.1177/0020764020975800

[173]   Rubin KH, Chronis-Tuscano A. Perspectives on Social Withdrawal in Childhood: Past, Present, and Prospects. Child Dev Perspect 2021; 15(3): 160-167.
https://doi.org/10.1111/cdep.12417

[174]   Kato TA, Kanba S, Teo AR. Hikikomori: Multidimensional understanding, assessment, and future international perspectives. Psychiatry Clin Neurosci 2019; 73(8): 427-440.
https://doi.org/10.1111/pcn.12895

[175]   Connolly MD, Zervos MJ, Barone CJ 2nd, Johnson CC, Joseph CL. The Mental Health of Transgender Youth: Advances in Understanding. J Adolesc Health 2016; 59(5): 489-495.
https://doi.org/10.1016/j.jadohealth.2016.06.012

[176]   Pachankis JE, Williams SL, Behari K, Job S, McConocha EM, Chaudoir SR. Brief online interventions for LGBTQ young adult mental and behavioral health: A randomized controlled trial in a high-stigma, low-resource context. J Consult Clin Psychol 2020; 88(5): 429-444.
https://doi.org/10.1037/ccp0000497

[177]   Expósito-Campos P, Pérez-Fernández JI, Salaberria K. Empirically supported affirmative psychological interventions for transgender and non-binary youth and adults: A systematic review. Clin Psychol Rev 2023; 100: 102229.
https://doi.org/10.1016/j.cpr.2022.102229

[178]   Lin YJ, Israel T, Ryan WS. Releasing internalized stigma for empowerment: Development of theory-driven interventions for sexual and gender minorities. Journal of LGBT Issues in Counseling 2019; 13(4): 276-292.
https://doi.org/10.1080/15538605.2019.1662358

[179]   Craig SL, McInroy LB, Eaton AD, Iacono G, Leung VW, Austin A, Dobinson C. An Affirmative Coping Skills Intervention to Improve the Mental and Sexual Health of Sexual and Gender Minority Youth (Project Youth AFFIRM): Protocol for an Implementation Study. JMIR Res Protoc 2019; 8(6): e13462.
https://doi.org/10.2196/13462

[180]   Loas G, Speranza M, Pham-Scottez A, Perez-Diaz F, Corcos M. Alexithymia in adolescents with borderline personality disorder. J Psychosom Res 2012; 72: 147-52.
https://doi.org/10.1016/j.jpsychores.2011.11.006

[181]   Iuso S, Severo M, Ventriglio A, Bellomo A, Limone P, Petito A. Psychoeducation Reduces Alexithymia and Modulates Anger Expression in a School Setting. Children 2022; 9(9): 1418.
https://doi.org/10.3390/children9091418

[182]   Holmqvist Larsson K, Andersson G, Stern H, Zetterqvist M. Emotion regulation group skills training for adolescents and parents: A pilot study of an add-on treatment in a clinical

setting. Clin. Child Psychol. Psychiatry 2019; 25: 141-155
https://doi.org/10.1177/1359104519869782

[183]   Bakan AB, Aslan G, Aka P. An investigation of the effect of the psychoeducation program provided to alexithymic and violent adolescents on the level of alexithymia. J Child Adolesc Psychiatr Nurs 2020; 33(3): 169-179.
https://doi.org/10.1111/jcap.12285

[184]   Hatamzadeh A, Molaie A, Shahidi S. Effectiveness of Group Psycho Educational Training of Emotional Intelligence on Alexithymia and General Health in Iranian Students. Procedia Soc Behav Sci 2012; 46: 968-972
https://doi.org/10.1016/j.sbspro.2012.05.232

[185]   Salles BM, Maturana de Souza W, Dos Santos VA, Mograbi DC. Effects of DBT-based interventions on alexithymia: a systematic review. Cogn Behav Ther 2023; 52(2): 110-131.
https://doi.org/10.1080/16506073.2022.2117734

[186]   Hoge E, Bickham D, Cantor J. Digital Media, Anxiety, and Depression in Children. Pediatrics 2017; 140(Suppl 2): S76-S80.
https://doi.org/10.1542/peds.2016-1758G

[187]   Sanbonmatsu DM, Strayer DL, Medeiros-Ward N, Watson JM. Who multi-tasks and why? Multi-tasking ability, perceived multi-tasking ability, impulsivity, and sensation seeking. PLoS One 2013; 8(1): e54402.
https://doi.org/10.1371/journal.pone.0054402

[188]   Minear M, Brasher F, McCurdy M, Lewis J, Younggren A. Working memory, fluid intelligence, and impulsiveness in heavy media multitaskers. Psychon Bull Rev 2013; 20(6): 1274-81.
https://doi.org/10.3758/s13423-013-0456-6

[189]   Kauhanen J, Kaplan GA, Julkunen J, Wilson TW, Salonen JT. Social factors in alexithymia. Compr Psychiatry 1993; 34(5): 330-5.
https://doi.org/10.1016/0010-440X(93)90019-Z

[190]   Stuart H. Reducing the stigma of mental illness. Glob Ment Health (Camb) 2016; 10; 3: e17.
https://doi.org/10.1017/gmh.2016.11

[191]   Sakai M,Ishikawa S, Sato H,Sakano Y. Development of hikikomori behavior checklist (HBCL) and examination of its reliability and validity. Japanese Journal of Counseling Science 2004; 37: 210-220
https://doi.org/10.1037/t68812-000

[192]   Uchida Y, Norasakkunkit V. The NEET and Hikikomori spectrum: Assessing the risks and consequences of becoming culturally marginalized. Front Psychol 2015; 6: 1117.
https://doi.org/10.3389/fpsyg.2015.01117

[193]   Teo AR, Chen JI, Kubo H, Katsuki R, Sato-Kasai M, Shimokawa N, Hayakawa K, Umene-Nakano W, Aikens JE, Kanba S, Kato TA. Development and validation of the 25-item Hikikomori Questionnaire (HQ-25). Psychiatry Clin Neurosci 2018; 72(10): 780-788.
https://doi.org/10.1111/pcn.12691

[194]   Veirman E, Van Ryckeghem DML, Verleysen G, De Paepe AL, Crombez G. What do alexithymia items measure? A discriminant content validity study of the Toronto-alexithymia-scale-20. PeerJ 2021; 9: e11639.
https://doi.org/10.7717/peerj.11639

[195]   Preece DA, Becerra R, Allan A, Robinson K, Chen W, Hasking P. Assessing alexithymia: psychometric properties of the Perth Alexithymia Questionnaire and 20-item Toronto Alexithymia Scale in United States Adults. Pers Indiv Diff 2020; 166: 110138.
https://doi.org/10.1016/j.paid.2020.110138

[196]   Hawi NS, Samaha M, Griffiths MD. The Digital Addiction Scale for Children: Development and Validation. Cyberpsychol Behav Soc Netw 2019; 22(12): 771-778.
https://doi.org/10.1089/cyber.2019.0132

[197]   André F, Munck I, Håkansson A, Claesdotter-Knutsson E. Game Addiction Scale for Adolescents-Psychometric

Analyses of Gaming Behavior, Gender Differences and ADHD. Front Psychiatry 2022; 13: 791254.
https://doi.org/10.3389/fpsyt.2022.791254

[198]   Yılmaz E, Griffiths MD, Kan A. Development and Validation of Videogame Addiction Scale for Children (VASC). Int J Ment Health Addict 2017; 15(4): 869-882.
https://doi.org/10.1007/s11469-017-9766-7

[199]   McGuire JK, Beek TF, Catalpa JM, Steensma TD. The Genderqueer Identity (GQI) Scale: Measurement and validation of four distinct subscales with trans and LGBQ clinical and community samples in two countries. Int J Transgend 2018; 20(2-3): 289-304.
https://doi.org/10.1080/15532739.2018.1460735

[200]   Kim S, Seo DG, Park JC, Son Y, Lee JH, Yoon D, Kim JW, Yoo JH, Lee JS. Development and validation of the Self-Harm Screening Inventory (SHSI) for adolescents. PLoS One 2022; 17(2): e0262723.
https://doi.org/10.1371/journal.pone.0262723