

Resilience and Psychological Distress in Early Adulthood with Non-Suicidal Self-Injury: A Scoping Review

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Abstract

According to Orenstein & Lewis (2021), young adults are at a transitional age and have demands on developmental tasks. When these demands are not met, it can cause feelings of suffering, activities that become obstacles and characterized by symptoms of anxiety and depression or called psychological disorders (Kalia & Knauf, 2020; Dharma et al, 2020). Psychological distress that are not balanced with adaptive problem solving can cause maladaptive distress, it called non-suicidal self-injury (Rahmasari, 2021). According to Hans et al (2022) bounce back is needed in young adults, so they can face the problem, or it called resilience. In the previous study by Khan & Ungar (2021), there were limited matters such as the search for coping strategies carried out by the sample in the study and protective factors from the emergence of self-harm and the non-specific definition of NSSI. Aims: identification research on resilience and psychological distress in young adults with NSSI. Method: scoping review. Result: 10 journals that met the inclusion criteria were selected. Hypothesis of this study is the results of the study indicate that the conditions of psychological distress in young adults with NSSI have low resilience and high levels of psychological distress. The benefits of this research theoretically are to enrich scientific references in the field of clinical psychology, especially regarding resilience and psychological disorders in young adults with NSSI and practically this research can be continued by taking into account several limitations and can be developed into interventions for young adults with NSSI.

Introduction

In Indonesia, the phenomenon of self-harm or referred to as *self-injury* is one of the phenomena that has been in the spotlight for the last 2 years (Adit, 2021). Based on the phenomenon obtained through an online interview with psychologist S from the Ibunda community regarding self-injury cases. According to S's client counseling experience, out of 50 clients handled by psychologist S, there are 20 clients with *self-injury problems* (S, Personal Communication, May 11, 2023). That is, in Indonesia it can be said that *self-injury* behavior is a fairly frequent phenomenon. This phenomenon is also reinforced by the results of research conducted by Setyarini (2021), *self-injury* can be characterized by the habit of pinching, burning, cutting and even stabbing oneself. In line with the phenomenon of *self-injury* that occurs in Indonesia, research conducted by Thomassin et al. (2017) explains that individuals who have good problem-solving strategies and positive emotional expression will not experience *self-injury* behavior. However, individuals who do not have a good problem-solving strategy will consider *self-injury* to be an appropriate way to escape from problems and a solution to get calm from a problem that causes negative feelings even if only for a moment (Himawan, 2022). *Self-cutting* or skin cutting on the skin of the hands is one of the behaviors that can be seen as the highest *self-harm* behavior that occurs in society (Briere & Gil, 1998).

Based on the results of research conducted by Klonsky (2009) more than 90% of participants who commit self-injurious behavior at first only do *self-cutting* then will continue to more dangerous behaviors such as banging body parts, scratching severely, and burning body parts or better known as *non-suicidal self-injury*. According to Victor et al. (2012) individuals who perform NSSI behavior will bring up feelings of *craving* and *addiction* to the behavior.

Non-suicidal self-injury is indicated by the presence of intentional destructive behavior on the individual's body and likely to cause bleeding, bruising, or pain (e.g., cutting, burning, stabbing, hitting excessively) in the absence of suicidal acts (DSM V-TR, 2022). NSSI is a behavior carried out with clear awareness and deliberate intention, committing acts that hurt, damage, and injure one's own body without a clear intent to commit suicide (Pattison & Kahan, 1983). According to Khan & Ungar (2021), there are different terms to define *Self-harm* as "*Non-suicidal self-injury*" (NSSI), namely "*deliberate self-harm*", "*self-mutilation*", "*self-injury*", "*injury*", or "*self-poisoning*".

Lutz et al. (2022) explained that the age range that does NSSI the most is 18-33 years old. Then, according to Klonsky et al. (2014) NSSI is more often experienced by middle adult and early adult individuals. Based on 2019 data from the *Indonesian Psychological Healthcare Center (Indopsycare)*, seven out of thirty patients who seek counseling experience NSSI with the dominant case occurring in women aged 21-32 years (Indonesian Psychological Healthcare Center, 2019). Then based on data from health agencies from the *Vermont Department of Health* (2020) from 903 hospitals in Vermont, there are about 160 cases of people doing NSSI and the highest cases are experienced by early adult individuals with an age range of <24 years. Furthermore, Swannel et al. (2014) amounted to 13.4% of early adults were NSSI perpetrators. The data was reinforced by the results of interviews conducted with psychologist S in the mother's community. In the interview, psychologist S explained that NSSI cases most often occur in early adulthood with an age range of 20-39 years (S, Personal Communication, May 11, 2023). The results of this interview are reinforced by the results of research in Indonesia on crises in early adulthood conducted by Amanda et al. (2021). According to Amanda et al. (2021), early adult crises are developmental periods that often cause high stress and have the potential to cause negative effects on mental health in early adulthood.

According to Orenstein & Lewis (2021), early adulthood has demands in developmental tasks. The task is to build closer social relationships with the opposite sex, commit to fostering more serious relationships in the form of marriage and form a close relationship with *the peer group*. According to Santrock (2019), *early adulthood is a transition from adolescence to adulthood which is colored by many changes in life. Early adulthood is a phase where individuals are in the process of adapting to new life patterns and meeting new social environments so that problems can occur both internal and external problems* (Putri, 2019). In addition, based on a statement from the *Substance Abuse and Mental Health Services Administration (SAMHSA)*, (2014), early adulthood can be a stage that causes individuals to experience stressful conditions because early adult individuals are required to become more independent and make decisions to determine their future such as, owning their own home, making educational plans, starting work careers and preparing for marriage.

According to Kalia & Knauft (2020), when early adult individuals cannot solve these demands and problems, it can make individuals experience psychological stress. Psychological distress is a fairly common problem in society (Kalia & Knauft, 2020). Based on national data in the US between 2001 and 2012, psychological distress is one of the most common cases experienced by the young adult population (Mojtabai & Anthony, 2015). Then, Wang et al. (2020) explained that early adult women under the age of 35 who experience symptoms of anxiety and depression are more at risk of experiencing psychological stress (S, Personal

Communication, May 11, 2023). Stressful conditions that are not balanced with adaptive problem solving can cause individuals to divert the stress experienced to maladaptive behavior, namely *non-suicidal self-injury* or abbreviated as NSSI (Rahmasari, 2021). According to Xin et al. (2016), individuals who are unable to manage emotional problems and tolerance to stress have a higher potential for *non-suicidal self-injury*.

NSSI can be caused by several things, namely: (1) Physical and sexual violence that occurs in childhood has a major contribution in the emergence of *self-destructive* behavior because memories often arise and arise as stress reactions experienced by the arena of trauma in childhood (Van der Kolk et al., 1991); (2) The rejection of parents in childhood can cause stress in children that causes children to feel unnoticed and unwanted by their parents, so that these thoughts are carried by children until they move to a more mature age. This resulted in the emergence of maladaptive behavior, namely NSSI (Zhu et al., 2020); (3) Feelings of loneliness can cause individuals to do NSSI. This is because when individuals feel lonely, they tend to withdraw from the environment. In this period of solitude makes individuals reflect more on themselves which can trigger the emergence of negative emotions and in the end the individual does NSSI as a way to channel their negative emotions (Gandhi et al., 2018); (4) Rumination and psychological distress. This is because when individuals think repeatedly and continuously about the problems faced can cause psychological stress. When psychological distress is not resolved properly, individuals have a high likelihood of directing the distress experienced to self-harm behavior (Richmond et al., 2015). This is in line with the results of research conducted by Klonsky et al. (2014) in which individuals perpetrating NSSI have intense negative emotions and the main cause of this is psychological stress. Then, Baetens et al (2014) explain that psychological stress is a predictor of the emergence of *non-suicidal self-injury behavior*. The results of this study were reinforced by the presentation of psychologist S who practices in the mother's community. In an *online* interview that has been conducted, psychologist S explained that the main problem that causes early adulthood to do NSSI is due to a stressful condition and results in early adulthood experiencing psychological stress. According to psychologist S, of the several cases he handled, the psychological stress experienced was caused by interpersonal conflicts both with family and with partners in romantic relationships (S, Personal Communication, May 11, 2023).

According to Viertiö et al. (2021), psychological distress is defined as the appearance of nonspecific symptoms of stress, anxiety and depression. According to Dharma (2020), psychological distress is characterized by feelings of suffering, activities that become inhibited and are generally characterized by the appearance of symptoms of anxiety and depression. Psychological distress is a fairly common problem in society. Based on national data in the US between 2001 and 2012, psychological distress is one of the most common cases experienced by the young adult population (Mojtabai & Anthony, 2015). Then, based on the results of research conducted by Wang et al. (2020), early adult women under the age of 35 who experience symptoms of anxiety and depression are more at risk of experiencing psychological distress. Psychological stress experienced by individuals can have an impact on physical and mental health even to death (Azzahra, 2017). Stressful conditions that are not balanced with adaptive problem solving can cause individuals to divert the stress experienced to maladaptive behavior, namely *non-suicidal self-injury* or abbreviated as NSSI (Rahmasari, 2021).

According to Richmond et al. (2017), NSSI experienced by early adulthood if left for a long time can lead to *suicidal* behavior. Then, Han et al. (2022) explained that good resilience is needed so that early adulthood can rise from the problems faced, so that they have more adaptive problem solving. (Han et al., 2022). The ability to survive during stressful conditions over time so that perceived stress symptoms can be gradually reduced is called resilience (Chen

et al., 2022). According to Panmun et al. (2021), resilience is an individual's ability when exposed to an isolated event and is very disruptive and life-threatening.

From a previous study conducted by Pink et al (2021) which used a *cross sectional* method regarding resilience and psychological stress. The results of the study explained that the level of resilience possessed by the participants of the first group was lower than the 2 comparison groups and indicated that the level of psychological stress experienced was lower. In line with the results of research conducted by Jacobson et al. (2022) with the longitudinal method for 6 months. Both studies are supported by the results of other studies, namely by Shabrina et al. (2021) stating that the higher the resilience of individuals, the more positive the view of individuals about the situation they experience and this can make psychological stress in individuals low. Then, according to Sihombing (2020) individuals who carry out NSSI tend to have a low level of resilience so that it is difficult to bounce back from the slump of a problem that occurs. Then, Sher (2019) explained that individuals who have a good level of resilience can prevent these individuals from *suicidal*. From the results of these studies, it turns out that resilience has a significant role in overcoming psychological stress experienced by individuals.

Based on DSM V-TR, NSSI phenomenon is a condition that needs to be the focus of attention in the clinical field (DSM V-TR, 2022). The NSSI phenomenon is not included in mental disorders, but is a problem that is often faced by clinicians, so it is important to do so that it can enrich useful references for clinical practitioners such as psychiatrists and psychologists. Research on *non-suicidal self-injury* with a focus on resilience variables and psychological distress has been widely conducted. However, the majority of previous studies used empirical methods. From the results of previous studies it can be seen that, in general, NSSI behavior defined by various countries refers to DSM and generally the intensity of NSSI behavior is high (Zhu et al., 2020; Van der Kolk et al., 1991; Khan & Ungar, 2021; Klonsky et al., 2014), and the hallmark of this behavior is the presence of *self-destructive* (self-destructive) and generally attached to psychological disorders, then the behavior of self-harm is intentional or *direct*. Then, specifically previous studies have shown that there are also different things from the results of research on NSSI, including mentions of the term NSSI, then different ways to hurt yourself, varied causes, and also the purpose of individuals doing this (Rahmasari, 2021; Pattinson & Kahan, 1983; Montjabai & Anthony, 2014).

Based on a similar study conducted by Khan & Ungar (2021) using the *scoping review method* with the theme of resilience and *self-harm* with a sample of adolescents who are minority communities where they live. In the study, there are still limited things, namely the purpose of the study is to find *coping* strategies carried out by the research sample and protective factors in general from *self-harm*. In the study, it also did not specifically mention *self-harm* in question as *non-suicidal self-injury*. From the existence of things that are still unexplained in the study, the purpose of this study is the identification of research on resilience and psychological stress conditions that occur in early adulthood NSSI perpetrators. The hypothesis of early adult research conducting NSSI is that it has high levels of psychological distress and low resilience.

It is expected that this study can provide theoretical benefits for future researchers, namely to enrich scientific references in the field of Clinical Psychology regarding resilience, psychological distress in early adulthood with *non-suicidal self-injury*, and can be a reference for future researchers to develop interventions, especially those related to resilience in early adults who have NSSI behavior in order to rise from the problems experienced so as to create adaptive problem solving. Thus, it can lower the likelihood of the behavior developing into suicidal behavior. Then, for health practitioners, it can be used as a scientific basis in making and preparing interventions that can be carried out by mental health practitioners in carrying

out activities. For example, the provision of training to increase resilience in early adults who have NSSI behavior. This is so that the individual can create adaptive problem-solving strategies so as to reduce the possibility of experiencing psychological stress. When psychological distress can be overcome, early adulthood who has NSSI tendencies will not escalate into NSSI behaviors. Then, for health institutions, the results of this study can be used as recommendations for health institutions to be able to pay more attention to early adults who have NSSI behavior so as not to reach *suicidal*. This is due to the large number of NSSI cases that have occurred and can have an impact on the possibility of committing suicide. With this research, health institutions can design interventions. For example, in the form of training for early adult individuals who have NSSI behavior in order to increase self-resilience so as to overcome the psychological stress conditions faced.

Methods

This study is a *scoping review study*. According to Tricco et al. (2018) *scoping review* is a scoping review that follows a systematic approach to map evidence on a topic and identify key concepts, theories, sources, and knowledge gaps. In addition, *scoping review* can also be used in drawing conclusions from the results of heterogeneous knowledge sets or identifying gaps in the literature to help plan future research (Tricco et al., 2018). *The framework* used in this *scoping review* is PCO (*population*: early adulthood; *context*: *non-suicidal self-injury*, and *outcomes*: *resilience and psychological distress*). *Scoping reviews* will refer to PRISMA-ScR (*Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews*). PRISMA-ScR (*Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews*) was developed according to guidelines published by the EQUATOR (*Enhancing the QUALity and Transparency Of health Research*) network for the development of reporting guidelines (Moher et al., 2010). The checklist on PRISMA-ScR consists of 20 main reporting items and 2 optional reporting items. Based on *evidence-based pyramids*, *scoping review* is the third method that has quality in searching for selected information (Burns et al., 2011). Thus, this study will use the *scoping review* method because this researcher aims to identify the results of previous studies that have not been explained about resilience and psychological stress conditions that occur in early adulthood NSSI perpetrators.

Eligibility Criteria

The keywords used are adjusted to the *terms* that appear most in each *database*. All data in this study was obtained through *online searches* from several databases, namely APA Psynet, *Google scholar*, Pubmed, *Sciencedirect* and Perpustakaan. The inclusion criteria that have been determined are: (a) using quantitative research designs and experiments because the purpose of this study is to identify research results using primary data; (b) the study sample is early adulthood; (c) reported *non-suicidal self-injury behavior*; (d) published in the last 16 years (2006-2022) because in 2006 it was found that early adulthood was the highest population that needed attention in terms of NSSI behavior; (e) published in English and Indonesian; (f) at least discuss one of the themes to be sought in this study, namely resilience, *non-suicidal self-injury* or psychological distress.

Data Charting

In data collection and analysis, researchers determine exclusion criteria for extracting from journals that do not match the research criteria. The data extracted are in accordance with the following exclusion criteria: (a) do not include research that does not use primary data; (b) discuss samples outside NSSI; (c) do not include the results of publications other than research journals; (d) exclude journals that have not been indexed.

Data Search Strategy and Procedure

In the *APA Psynet*, *Pubmed*, *Perpusnas* and *Science Direct* databases, features are used to filter age groups (early adults / young adults / *young adults* / *emerging adults* / *early adults* / *young people*), types of research (experimental and quantitative), and research fields (psychology) while in the *google scholar database* Only limited to the use of *search engines* in general. The *keywords* used by researchers for resilience are *resilience*, *flexibility*, *adaptability*, resilience, flexibility, adaptability and resilience. Then, *the keywords* used for psychological distress are *psychological distress*, *negative emotional*, *mental distress*, *mental pressure*, psychological distress, negative emotions, mental stress, and mental pressure. Then, *the keywords used for non-suicidal self-injury* are *self-harm*, *non-suicidal self-injury*, *self-destructive*, *self-injury*, *self-cutting*, *self-harm*, and *self-harm*. *Keywords* and word equivalents are in appendix 6.

The process of conducting *the review* is carried out by 3 people, namely by researchers (A) and together with the two *supervisors*, namely T and R. In the search for scientific research and the selection process in accordance with predetermined feasibility several stages are carried out, namely: (1) the use of *keywords* that have been determined in scientific research searches through *databases* on *advanced search* / *search engines*; (2) After obtaining scientific journals from all *databases*, researchers check duplication and remove duplicated journals using the detect duplicates *feature* in the rayyan application; (3) Carry out the data extraction process in accordance with the PRISMA-ScR diagram and in accordance with the predetermined eligibility criteria.

The data extraction process will be carried out in 2 stages, namely through *screening* based on the title, then based on the abstract. The goal is to efficiently eliminate all publications that clearly do not meet the inclusion criteria. In the *screening* process, researchers use a *reference manager* application, namely mendeley, and a *review application*, rayyan. All journals obtained through the *database* are *inputted* into mendeley and rayyan. Then, the process of extracting data based on title is carried out by labeling, namely *screening by title* of all journals that have been inputted into rayyan. Then, there are *include* and *exclude* features on rayyan, so that journals that have been screened based on title will be grouped automatically in the *include* and *exclude* sections in the rayyan application. Furthermore, the process of eliminating journals based on abstracts is carried out by providing screening labels *by abstract* and *full text* in the include journal group.

In the *abstract-based screening* process, researchers together with the two *supervisors* read carefully selected journals to ensure that the journals are available in *full text* and in accordance with predetermined inclusion criteria. Journals that have been read in *full text* will be given regrouped with *include* and *exclude* features on rayyan. Journals that are not suitable will be grouped into *excludes* and labeled *outcomes* that do not meet the inclusion criteria, participants do not meet the inclusion criteria, there is no *full text*, and research methods are not appropriate. After completing screening based on abstracts and *full text*, the journals grouped into *include* are journals that will be *reviewed* and analyzed in depth and labeled *Yes, review*; (4) Scientific journals that have been selected will be included in *Microsoft Excel* in the form of *abstract review tables*. *Abstract review* contains the name of the researcher and year of research, journal name, research location, journal index based on *Scimago*, participant characteristics consisting of age range, participant sex comparison, and participant information. Then there are also research methods, measuring instruments used, main research results, other research results and NSSI behavioral characteristics. In this stage, a more comprehensive review process will be carried out on the selected scientific research; (5) Then, from the review process, the results of analysis and conclusions from the journals that have been reviewed are made.

Results and Discussion

Figure 1 presents a flowchart of the process of selecting included studies. Search process through 5 *databases* (Pubmed, *google scholar*, APAPsynett, *sciencedirect* and *perpusnas online*). A is tasked with searching data through an *online database* using *keywords* that have been determined by T and R. There are 7,170 journals obtained by A in the process of searching from online databases. In conducting *charting data* through *screening by title* A assisted by R. There were 3,874 journals selected based on title. In removing duplicate journals in the application, rayyan A deleted 3,296. Then, the process of *charting data* from 3,784 journals through thorough text reading was carried out by A and assisted by T and R. There were as many as 90 selected journals based on full text journal reading. Of the 80 journal articles issued on the grounds that there are no *outcomes that meet the inclusion criteria as many as 68 journals*; *participant criteria do not meet the inclusion criteria as many as 6 journals*; *not available full text as many as 4 journals*; *Research methods are not suitable as many as 3 journals*. Finally, there are 10 journals identified in this scoping review study. In the process of conducting a review, A is assisted by T and R to cross check in writing *abstract review tables*.

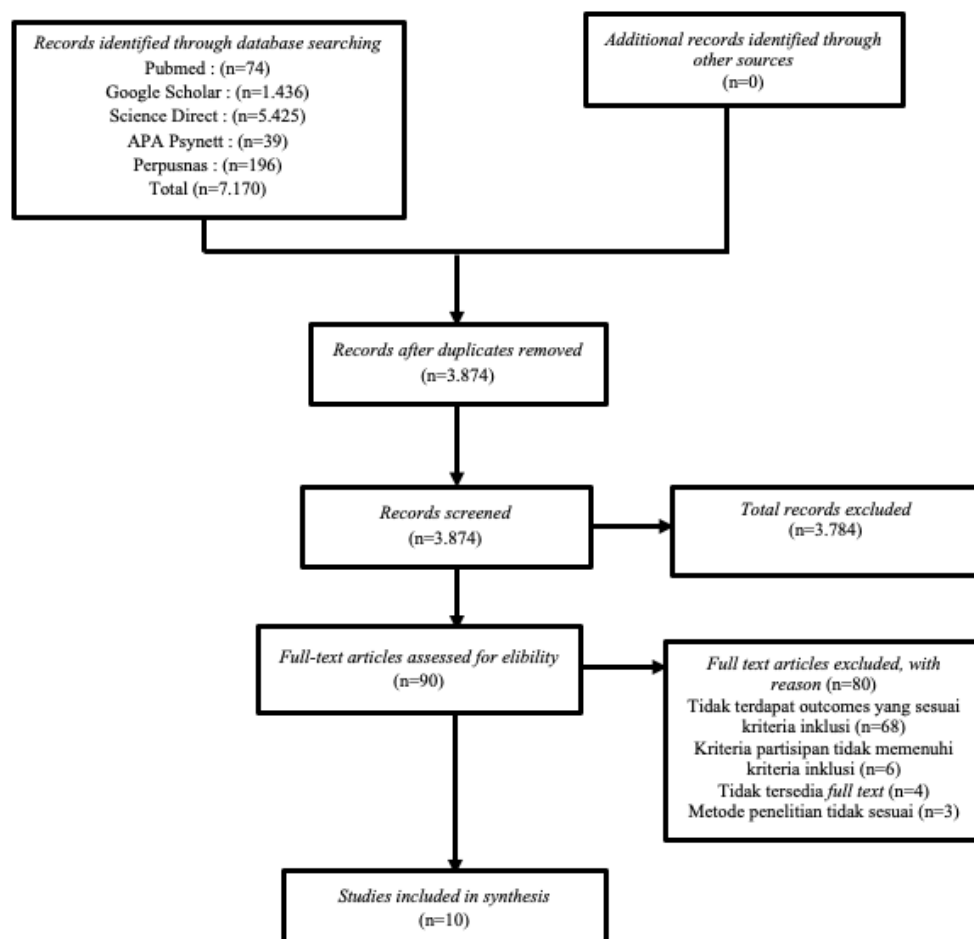


Figure 1. Research Journal Selection with PRISMA-ScR Diagram

Characteristics of Include Studies

Based on the results of the abstract *review table* (Table 1), journals from Asia, America, Australia and Europe were obtained. There are 3 journals from the Australian continent written by Williams et al. (2010); Watson & Tatnell (2019); Richmond et al. (2017). Then, there are 5 journals from the European continent written by Nagra et al. (2016); Becker & Fischer (2014);

Polek et al. (2020); Cassels et al. (2022). There is only 1 journal from the Americas and Asia, each written by Whitlock et al. (2013) and Singhal et al. (2021). From the results of checking, all journals have been accredited through the scimago journal index. There are 4 journals indexed by Q1, namely 1 journal of *society for I2 prevention research*, 2 journals of *psychiatry research* and 1 journal of BMJ. Then there are also journals indexed by Q2, namely 1 journal of *personality and mental health*, 1 journal of *current psychology* and 4 journals of *archives of suicide research* (Table 1).

Based on the characteristics of the participants, from 10 journals reviewed, the average number of participants was 464-14,000 participants with an age range of 19-30 years. Then, there are 8 research journals that say that there are more female participants than men. The journal was written by Williams & Hasking (2020) (female n= 211, male n=78); Nagra et al. (2016) (female n= 285, male n=38); Peterson et al. (2014) (female n= 648, male n=226); Watson & Tatnell (2019) (female n= 211, male n=78, non-binary n=49, *gender fluid, agender, genderqueer*, transgender or question n=9); Singhal et al. (2021) (female n= 918, male n=656); Lutz et al. (2022) (female n= 629, male n=360); Polek et al. (2020) (female n= 4,767, male n=4,218); Richmond et al. (2017) (female n= 1,178, male n=397); and Cassels et al. (2022) (females n= 1,537, males n=895). But in 1 research journal written by Whitlock et al. (2013) mentioned the number of male participants more than female participants (women n = 5,332, men n = 6,263).

Based on participant information, there were 7 journals whose research participants were students written by Williams & Hasking (2010); Peterson et al. (2014); Singhal et al. (2021); Lutz et al. (2022); Whitlock et al. (2013) and Polek et al. (2020), 1 journal whose participants are members of a forum for support for *self-injury* perpetrators so that the behavior can decrease written by Nagra et al. (2016), 1 journal with LGBTQA+ community participants written by Watson & Tatnell (2019), 1 journal is the general population and 1 journal is a medical patient written by Cassels et al. (2022) (Table 1). The method used in the 10 journals reviewed uses the same method, namely quantitative. But there are 2 types of research used from journals that have been identified. There are 9 journals with correlational quantitative research types written by Williams & Hasking (2010); Peterson et al. (2014); Singhal et al. (2021); Lutz et al. (2022); Nagra et al. (2016); Watson & Tatnell (2019); Cassels et al. (2022) and Whitlock et al. (2013). In the journal written by Polek et al. (2020) using a type of *cohort study*.

In quantitative measurement, there are similarities and differences in the use of measuring instruments in measuring psychological distress, resilience and NSSI. In measuring psychological distress, there is 1 journal each that uses the COPE measuring instrument, *Kessler Psychological Distress Scale* (K10), *Kessler Psychological distress* (K6), *Revised Children's Manifest Anxiety Scale*, *Self-rating scales of psychological*, *The Distress Tolerance Scale* (DTS). Then, there were 2 journals that used the *Depression, anxiety and stress scale* (DASS-21) to measure psychological stress conditions in participants. However, there are 2 journals that do not discuss psychological stress.

Then, resilience in participants was measured by 2 different measuring instruments used, namely 1 journal using *the Resilience Appraisal Scale* (RAS) and 1 journal using the *Resilience Scale for Adults* (RSA). Then, in measuring NSSI behavior from 10 journals reviewed, the most frequently used measuring instrument is *the Drugs, Alcohol and Self-Injury Questionnaire* (DASI). There are 3 journals that use this measuring instrument. Furthermore, there are 2 journals each that use the *Deliberate Self-harm* (DSH) measurement tool and 2 journals each that use the *Inventory for Statements about Self-Harm* (ISAS) measurement tool. Furthermore, in NSSI measurements, there is 1 journal each using the *Non-Suicidal Self-Injury Assessment Tool* (NSSI-AT) and *The Borderline Symptom List Supplement: Items for Assessing Behavior* (BSL-23). Of all journals, there is 1 journal that uses instructions to ensure

that in the study all participants are NSSI actors. The instructions given were that in this study participants did not self-harm for suicidal purposes by giving a scale of 1-5 regarding frequency, which body parts were injured, the last time they committed NSSI and the severity of NSSI behavior.

Resilience in early adulthood who perform NSSI

In the 10 journals reviewed, there were only 2 journals that discussed resilience. The first journal written by Madden (2007) states that resilience is significantly correlated with *self-harm behavior* which is characterized by significance values on the three resilience subscales measured, namely *support seeking*, *emotion coping* and *problem solving* ($p = <.01$). The results of the same study were also obtained from the results of research by Watson & Tatnell (2019) which stated that resilience was negatively correlated with NSSI ($p = <.01$). This study also states that early adult NSSI perpetrators have low resilience and high levels of psychological distress.

Psychological distress in early adulthood who perform NSSI

Then, journals that discuss psychological stress number 8. All of these journals explain that psychological stress is positively correlated with NSSI. 8 of these journals were written by Williams & Hasking (2010); Peterson et al. (2019); Singhal et al. (2021); Lutz et al. (2022); Whitlock et al. (2013); Polek et al. (2020); Richmond et al. (2017) and Cassels et al. (2022). Williams & Hasking (2010), explain that psychological distress is positively correlated with NSSI in early adulthood who do NSSI ($p = <.001$). The results of research conducted by Peterson et al. (2017), explained that individuals who have high stress tolerance are negatively correlated with NSSI ($p = -.12 > .001$). Then, the results of research conducted by Singhal et al. (2021) stated that the comparison between groups that carried out NSSI behavior by combining 2 or more ways of self-harm $n = (122, \text{frequency: } >5 \text{ episodes})$. Then, for the NSSI perpetrator group with *severe* severity ($n = 40, \text{frequency} = 1 \text{ episode}$) and the results of the study stated that both groups showed high levels of psychological distress ($p = .0004 < .001$) (Singhal et al., 2021). Furthermore, there is another study conducted by Lutz et al. (2022) which conducted research on NSSI perpetrators who have a history of carrying out these behaviors before. The results of this study show that the presence of high psychological stress makes the risk of repeating NSSI behavior in the present ($p = <.05$) (Lutz et al., 2022).

There is also a study conducted by Whitlock et al. (2013), states that early adulthood with a high psychological distress score ($M = 3.21, SD = 1.4$) correlates most significantly with early adulthood with a history of NSSI behavior and followed by negative experiences in the past ($N = 3.033$). In line with the results of research conducted by Polek et al. (2020) also stated that psychological stress correlated significantly with the risk of NSSI in the future ($AUC = .83$) and Richmond et al. (2017) also mentioned that psychological stress was positively correlated with NSSI ($M = 7.44, SD: 4.79$). As well as research conducted by Cassels et al. (2022) explained that psychological distress is a risk factor for the emergence of NSSI behavior ($\beta = -.2, 95\% \text{ CI} = 0.035 \text{ to } 0.004$).

Early Adult Mental Health Conditions of NSSI Perpetrators

Of the 10 journals reviewed, there were 4 journals that measured psychological disorders in participants and made comparisons between groups of NSSI perpetrators with mental disorders and those who did not experience mental disorders. The results of research from the 4 journals showed that mental disorders correlated significantly with NSSI. The results of research by Williams & Hasking (2010) explain that participants who have been diagnosed with certain psychological disorders have a greater risk of doing NSSI ($B: -6.42, \beta: -0.33^{***}, p < 0.01$). Then, the results of research conducted by Peterson et al. (2014) explained that the most

psychological disorders experienced by NSSI participants in their research were depression ($M = 12.54$, $SD = 5.88$). In line with the results of research conducted by Polek et al. (2014) and Richmond et al. (2017) also stated that the psychological disorders most experienced by early adult NSSI perpetrators are depression ($M = 10.77$, $SD = 5.48$) and anxiety ($M = 7.94$, $SD = 4.87$). Then, Polek et al. (2020) added in addition to anxiety (T1: 95% C.I.: 5.67-10.22; T2: 2.39-5.67) and depression (T1: 95% C.I.: 6.15-11.14; T2: 2.32-5.46), antisocial personality disorder (T1: 95% C.I.: 1.78 - 3.47; T2: 4.52-8.19) and OCD (T1: 95% C.I.: 2.58-4.89; T2: 1.79-4.22) is also positively correlated with NSSI. From the 4 research results that state that psychological disorders correlate with NSSI, it can be interpreted that the mental health condition of early adult NSSI perpetrators is not good because based on the journal review above, NSSI behavior is also accompanied by psychological disorders.

Behavioral features of NSSI

Of the 10 journals that have been reviewed, there are 5 journals that discuss the characteristics of NSSI behavior carried out by early adults. 5 of these journals were written by Williams & Hasking (2010); Watson & Ruth (2019); Singhal et al. (2021); Polek et al. (2020); Richmond et al. (2017). 5 other journals written by Madden (2007); Peterson et al. (2014); Lutz et al. (2022); Whitlock et al. (2013) and Cassels et al. (2022) did not explain the identification of NSSI behavior carried out by their study participants.

Williams & Hasking (2010) describe the NSSI behavior shown by their study participants, namely hitting, kicking or punching themselves or certain objects as many as 59.12% of participants, then scratching themselves and slashing themselves as many as 52.55% of participants. Then, the body parts that were often injured were the forearm as much as 63.8% of participants, wrists and thighs as much as 55.5% of participants. Then, the frequency of early adults doing NSSI is the last 1 month.

Watson & Ruth (2019) describe NSSI behavior carried out by early adulthood through ways done to self-harm is self-cutting (55.4%), slowing the wound healing process (41.5%) and *self-battery* (40.3%). In addition, Watson & Ruth (2019) added identification of NSSI behavioral characteristics, namely the reason for doing NSSI because they want to regulate emotions, punish themselves and anti-dissociation, and provide questions about the desire to stop. A total of 141 participants wanted to stop doing NSSI ($n = 141$), then did not want to stop ($n = 17$) and hesitated ($n = 53$).

Singhal et al. (2021) identified early adults who did NSSI through the frequency of doing NSSI, which was 22.4% of participants doing NSSI around last year. Then, the onset of participants starting NSSI was at the age of 16 years ($SD = 3.52$). NSSI behavior shown is self-challenge, hitting, hanging yourself and scratching yourself. Polek et al. (2014) provide an overview of NSSI behavior as shown by the frequency of individuals in conducting NSSI, namely in the last 2 weeks. Then, Richmond et al. (2017) also define individuals as NSSI perpetrators through the frequency of conducting NSSI, which is done within 1 time in 4 weeks (in 1 year).

The scoping review conducted aims to identify the results of empirical research on psychological distress and resilience conditions in early adults who perform NSSI. There are 10 journals that match the research inclusion criteria. Of the entire journals that have been reviewed, there are 2 journals that discuss resilience and 8 journals that discuss psychological stress in early adulthood who carry out NSSI. In addition to the main findings regarding psychological distress and resilience, this study also discusses other findings, namely mental health conditions and characteristics of NSSI behavior in general from various countries.

Based on 10 journals that have been identified, there are only 2 journals that discuss resilience written by Nagra et al. (2016) and Watson & Tatnell (2019). From the two journals, it is

explained that resilience has a negative correlation with NSSI. Nagra et al. (2016) explained that resilience functions in preventing individuals who commit *self-harm* from committing suicide. The results of this study are in line with the results of research conducted by Watson & Tatnell (2019) which explains that low resilience is significantly correlated with stress, depression and anxiety which indicates high psychological stress. That is, the lower the resilience in an individual, the higher the likelihood of NSSI behavior appearing. The presence of low resilience is also significantly correlated with the emergence of NSSI behavior. Breton et al. (2015) who explain that resilience can affect a person's response in a positive direction and bring out more positive individual adaptability despite having experienced a less good or stressful experience. In addition, low levels of resilience are also associated with high psychological distress and can pose an individual's risk for NSSI (Watson & Tatnell, 2019). Based on previous research conducted by Anghel (2015) which explains that resilience is a factor that can make individuals avoid psychological stress. Thus, it can be interpreted that early adult individuals who perform NSSI have low levels of resilience, especially in early adulthood who also have high levels of psychological distress. This makes early adulthood more likely to do NSSI.

Then, from 10 journals that have been identified, there are 8 journals that discuss psychological stress written by Williams & Hasking (2010); Peterson et al. (2019); Singhal et al. (2021); Lutz et al. (2022); Whitlock et al. (2013); Polek et al. (2020); Richmond et al. (2017) and Cassels et al. (2022). The results of research from 8 journals explained that psychological stress is positively correlated with NSSI. That is, the higher the psychological stress, the higher the risk of early adulthood doing NSSI. Orenstein & Lewis (2021) explain that psychological distress is an unavoidable condition in early adulthood due to the demands of development and life transition from adolescence to a more mature age, namely early adulthood. According to Richmond et al. (2017) stressful conditions experienced by early adulthood can damage cognitive abilities and minimize the ability to effectively implement adaptive emotion regulation strategies, so that NSSI behavior is then used as emotion regulation. Then, in a study conducted by Singhal et al. (2021), explained grouping early adults who did NSSI with different levels of psychological distress ranging from low, medium to high levels. From the results of research by Singhal et al. (2021) that the higher the level of psychological stress experienced by participants, the more intense the NSSI behavior carried out. Thus, it can be interpreted that early adults who do NSSI have high psychological stress.

Psychological distress is a risk factor that makes early adulthood do NSSI. Then, from the results of research conducted by Williams & Hasking (2010); Peterson et al. (2014); Polek et al. (2014) and Richmond et al. (2017) there are factors that accompany NSSI behavior, namely psychological disorders. After identification, of the four journals the most common psychological disorders experienced by participants were anxiety and depression. In research conducted by William & Hasking (2010) explained that participants who have been diagnosed with psychological disorders are generally accompanied by self-harm actions, one of which is NSSI. This is explained by Zetterqvist et al. (2020) that individuals who experience psychological disorders will withdraw from the social environment and choose to isolate themselves until they eventually feel lonely and empty. Self-harm behavior or NSSI is used as a form of communication or a way to get affection from the surrounding environment. Self-harm behaviors are used by individuals who have psychological disorders to reduce feelings of emptiness and attempts to avoid neglect from the environment (Zetterqvist et al., 2020).

Thus, the results of this study are in accordance with the research hypothesis that has been formulated, namely early adults who carry out NSSI have a low level of resilience and high psychological stress conditions. From the results of research conducted by Watson & Tattnel

(2019) also explained that resilience is a protective factor from psychological distress that can reduce the risk of early adulthood doing NSSI. The results of this study are in line with the results of previous studies which explained that resilience is a protective factor in NSSI behavior and can prevent NSSI perpetrators from carrying out more dangerous behavior, namely *suicidal* (Sher, 2019). Then, in measuring resilience, psychological stress and NSSI that occur in early adulthood, NSSI actors from various continents in the world turned out to use different measuring instruments. Of the 10 journals that have been selected, the measuring instrument used to measure resilience is the *Resilience Appraisal Scale* (RAS) and 1 journal uses the *Resilience Scale for Adults* (RSA). Then, the measuring instruments used in measuring psychological distress are COPE, *Kessler Psychological Distress Scale* (K10), *Kessler Psychological distress* (K6), *Revised Children's Manifest Anxiety Scale*, *Self-rating scales of psychological*, *The Distress Tolerance Scale* (DTS) and *Depression, anxiety and stress scale* (DASS-21). NSSI behavior was measured using the *Non-Suicidal Self-Injury Assessment Tool* (NSSI-AT) and *The Borderline Symptom List Supplement: Items for Assessing Behavior* (BSL-23).

In measuring resilience, there are 2 different measuring instruments in measuring resilience, namely the *Resilience Appraisal Scale* (RAS) and 1 journal using the *Resilience Scale for Adults* (RSA). The RAS measuring instrument was used in a study conducted by Nagra et al. (2016) in measuring resilience for a sample of students conducting NSSI. This measuring instrument was made by Johnson et al. (2010) RAS measuring instrument consists of 12 items that assess positive judgments in a person. Then, RAS consists of three sub-scales that measure the individual's perceived ability to cope with negative emotions, solve problems and individual perceptions of social support obtained. *The Resilience Appraisal Scale* (RAS) has a reliability value with each aspect of $\alpha = 0.86$ for the *emotion coping* subscale, $\alpha = 0.89$ for the *problem-solving strategy* subscale and $\alpha = 0.87$ for the *support search* subscale. Then, the *Resilience Scale for Adults* (RSA) measurement tool was used by Watson & Tatnell (2019) in their research with a sample of LGBTQA+ early adults. This measuring instrument was made by Friberg et al. (2003). In this measuring tool, there are 6 subscales of resilience, namely self-perception, future plans, social abilities, family attachments, social resources, and *structured style*. Excellent level of internal consistency with the LGBTQA+ early adult sample. The reliability of the *Resilience Scale for Adults* (RSA) measurement tool in this study was ($\alpha = 0.89$). This means that the two measuring instruments used to measure resilience have a very good internal consistency so that this measuring instrument can be used in future primary research. Research with general samples can use *Resilience Appraisal Scale* (RAS) measuring instruments and measuring instruments with samples with special criteria such as LGBTQA+ can use *Resilience Scale for Adults* (RSA) measuring instruments.

Then, from 10 journal articles there are 8 different measuring instruments in measuring psychological stress conditions in the research sample. The most widely used measuring instruments from the 8 journals are *The Distress Tolerance Scale* (DTS) and *the Depression, anxiety and stress scale* (DASS-21). *The Distress Tolerance Scale* (DTS) measuring instrument was created by Simons & Gaher (2005). DTS is specifically aimed at measuring the perceived capacity to tolerate an individual's perceived stress. There are four components of the DTS model, namely: (1) the ability of individuals to tolerate emotions (tolerance); (2) appraisal of the emotional situation (*appraisal*); (3) the level of attention absorbed by negative emotions and impaired relevant functioning (absorption); and (4) the ability to regulate emotions. In this study, there is a journal that uses *The Distress Tolerance Scale* (DTS) to measure psychological stress in a sample of college students written by Peterson et al. (2014). In the research of Peterson et al. (2014) DTS has a reliability value of ($\alpha = .91$) (Simons & Gaher, 2005).

In addition to *The Distress Tolerance Scale* (DTS), the most widely used measurement tool from 10 journal articles in this study is the *Depression, anxiety and stress scale* (DASS-21). This measuring instrument was made by Lovibond & Lovibond (1995). The *Depression, anxiety and stress scale* (DASS-21) is designed to measure the emotional states of depression, anxiety, and stress (i.e., chronic non-specifics, e.g., tension, inability to *relax* and irritability). There are 2 journals, namely journals written by Richmond et al. (2017) and Singhal et al. (2021) with a sample of the general population. In the results of research conducted by Richmond et al. (2017), it is known that the reliability value of the *Depression, anxiety and stress scale* (DASS-21) measuring instrument is (α = depression = .91; anxiety = .83; and stress = .88.). Then, from the results of reliability tests conducted in the research of Singhal et al. (2021), it is known that the reliability value of the *Depression, anxiety and stress scale* (DASS-21) measuring instrument is (α = 0.84).

Then, there are different measuring instruments used by Cassels et al. (2022), namely *Self-rating scales of psychological/psychiatric symptoms for general distress* with samples of psychiatric patients. This measuring instrument was used by Caseeles et al. (2022) because it has been used by previous studies that also examined psychiatric patients of St Clair et al. (2017). This measuring tool was used to determine the general picture of stress in research participants. From the results of the *model fit* test, it is known that 77% of the *variance* of the model is appropriate. Thus, these two measuring instruments have good consistency and validity values in measuring psychological distress in different samples. Therefore, future studies that will examine psychological distress can use the *Depression, anxiety and stress scale* (DASS-21) to measure psychological distress in the general population while for studies with specific samples can use *Self-rating scales of psychological/psychiatric symptoms for general distress*.

Furthermore, from 10 journal articles there are 5 different measuring tools used in NSSI behavior measurement, namely *Drugs, Alcohol and Self-Injury Questionnaire* (DASI), *Deliberate Self-harm* (DSH), *Inventory for Statements about Self-Harm* (ISAS), *Non-Suicidal Self-Injury Assessment Tool* (NSSI-AT) and *The Borderline Symptom List Supplement: Items for Assessing Behavior* (BSL-23). Of the five measuring instruments, the most widely used measuring instrument is the *Drugs, Alcohol and Self-Injury Questionnaire* (DASI). This measuring instrument was developed by Wilkinson et al. (2018) with a validity value of (r = 0.66). This measurement aims to determine the decision making that is risky to individuals. This measuring instrument was used in a general sample in research conducted by Lutz et al. (2022) and Polek et al. (2022). In addition, the *Drugs, Alcohol and Self-Injury Questionnaire* (DASI) is also used in specific samples, namely psychiatric patients whose measurements have been made by Cassels et al. (2022) with a validity value of (r = 40.66). In another study, with the *Inventory for statements about self-harm* (ISAS) measurement tool, Watson & Tatnell (2019) measured NSSI behavior in another specific sample, namely the LGBTQIA+ population with a reliability value of (α = .82 - .84). This measuring instrument was made by Klonsky & Glenn (2009). The first section of the ISAS analyzer assesses the lifetime frequency of 12 NSSI behaviors, such as biting, cutting and burning. In addition to other NSSI characteristics, including age of onset and desire to discontinue NSSI. The second part of ISAS assesses 13 NSSI functions can be described into interpersonal and intrapersonal functions (Klonsky & Glenn, 2009).

Then, from the identified journals there was a study conducted by Nagra et al. (2016) measuring NSSI behavior on samples recruited through forums to become a *support system for self-harm actors*. In the study, Nagra et al. (2016) used the *Deliberate Self-harm Behaviours Questionnaire* (DSHBQ) measuring instrument. This measuring instrument was created by

Harris & Roberts (2013). The measurement is designed for *online* use and includes 22 items, 5 of which map the frequency and lifetime history of *self-harm*. Of the variety of measuring instruments used in 10 journals that have been identified, in future studies the measuring instruments that have been discussed in this study can be a reference. In the study sample, the general population can consider using the *Drugs, Alcohol and Self-Injury Questionnaire* (DASI) measuring instrument because it has been used by 2 identified journals. Then, in studies using specific samples such as the LGBTQIA+ population, psychiatric patients and community forum members can use the *Inventory for statements about self-harm* (ISAS) and *Deliberate Self-harm Behaviours Questionnaire* (DSHBQ) measuring tools. Of the 10 journals that have been identified, there are 5 journals that discuss the characteristics of NSSI in early adulthood. The five journals were written by Williams & Hasking (2010); Watson & Ruth (2019); Singhal et al. (2021); Polek et al (2020); Richmond et al. (2017). The five journals come from different countries, namely Australia, India and London. Of the three countries, there are similarities and differences in providing NSSI behavioral characteristics.

The similarity in identifying NSSI behavior traits in early adulthood is by defining the manner of self-harm and the frequency with which NSSI behavior. Williams & Hasking (2010); Watson & Tatnell (2019) and Singhal et al. (2021) explained that the behavior that is generally carried out is hitting, kicking or punching yourself or certain objects then scratching yourself and cutting yourself, slowing down the wound healing process, then the body parts that are often injured are the forearms, wrists and thighs. Then Polek et al. (2020). Williams & Hasking (2010); Singhal et al. (2021) and Richmond et al. (2017) identified NSSI behavior based on the frequency of conducting NSSI. The frequency of NSSI behavior performed averaged the last 2 weeks-1 year. The difference in identifying NSSI behavior is explained in a journal written by Watson & Ruth (2019) through the reasons individuals do NSSI, namely because they want to do emotional regulation, self-punishment and anti-dissociation and provide questions about the desire to stop. Through questions about the desire to stop doing NSSI, the majority of participants wanted to stop doing NSSI. Then, differences in identifying NSSI behavior were also made by Singhal et al. (2021) regarding the onset of NSSI behavior starting with an age range of 16 years.

In Indonesia, the phenomenon of self-harm behavior has been studied by (Rahmasari, 2021; Sihombing, 2020) who explained that low resilience can make individuals fragile and at risk of doing NSSI as an escape from the stress faced. This is reinforced by the results of interviews conducted by researchers with psychologists at the mother's psychology clinic with the initials S. Psychologist S explained that the NSSI phenomenon has often occurred in Indonesia. Psychologist S mentioned that of the 50 clients handled by psychologist S, there were 20 clients who did NSSI. According to psychologist S, the largest population of NSSI perpetrators is early adult *injury* (S, Personal Communication, May 11, 2023). The cause of the emergence of NSSI behavior in early adulthood is due to stressful conditions due to interpersonal conflicts with family and couples. According to psychologist S, early adults who experience psychological distress often feel helpless and feel unable to solve problems in an adaptive way. From this, early adulthood will solve problems in a maladaptive way, namely self-harm or called NSSI. Psychologist S also explained the purpose of early adulthood doing NSSI in order to forget for a moment the feeling of fatigue and boredom when facing problems so that they feel a momentary relief. In addition, psychologist S explains that early adults who do NSSI distract by hurting themselves as a way to take their minds off the distress experienced.

Research on resilience and psychological stress with *the scoping review* method, especially in early adults who do NSSI has never been carried out even though cases regarding NSSI have been found, especially in Indonesia. From this research, it is expected to enrich scientific

references regarding psychological stress conditions and resilience in early adults who carry out NSSI. Then, it can be a reference for developing interventions, for example through resilience improvement training so that early adults who are currently experiencing psychological stress due to the many demands and problems can direct their problem-solving strategies more positively and adaptively. In addition, from the 10 journals that have been identified, there are similarities and differences in defining the behavioral characteristics of NSSI itself, so that with this study researchers can further facilitate in identifying participants who carry out NSSI. The research conducted complements the results of previous research conducted by Khan & Ungar (2021) which has not defined NSSI behavior specifically.

The limitation of this study lies in research that links resilience and psychological stress is still very limited. In this study, there was only 1 scientific journal (Watson & Tattnel, 2019) that linked resilience and psychological stress in early adults who did NSSI. In addition, there are only 2 journals that discuss resilience in early adults who do NSSI, so this study has limitations in presenting the results of research on resilience and its relationship with psychological stress. From this, it can be used as a reference for future researchers to increase empirical research on resilience, especially in early adults who carry out NSSI. For researchers who will conduct the *review* method can consider other factors that are also related to NSSI such as emotional regulation, *coping strategies*, *negative experiences* and history of NSSI behavior, especially mental health conditions. Especially because the results of this study discuss psychological disorders that are comorbid from NSSI behavior carried out in early adulthood. Also, from the results of identification and previous research, psychological disorders become risk factors for the emergence of NSSI behavior. Then, this study was also limited to studies with an early adult population that also still limited the number of studies available. Thus, it is hoped that future studies can conduct research on NSSI in early adult samples because in early adulthood NSSI cases are high cases, especially in Indonesia.

Conclusion

Conditions of high psychological stress and low levels of resilience in early adults who perform NSSI are things that need to be considered in the clinical field. From this *scoping review* research, it is known that research on resilience in early adults who conduct NSSI is still limited. Though resilience is important for early adulthood to have because of the many tasks and challenges faced at that age. With good resilience function in early adulthood, early adulthood becomes more resilient when faced with psychological stress conditions from the problems faced. When early adulthood can deal with psychological stress and has good resilience, the likelihood of early adulthood doing NSSI is lower. From the results of this *scoping review*, it is hoped that it can be a reference for future research in order to develop research on early adults who conduct NSSI, especially regarding resilience and psychological stress conditions experienced. It is hoped that by adding research on resilience and psychological stress in early adults who carry out NSSI, NSSI perpetrators will not commit more dangerous behaviors, namely *suicidal*. In addition, it is known that psychological disorders accompany the emergence of NSSI behavior so that this can also be considered as a matter of concern in future research. Then, from this research, it is hoped that it can be practically used as a basis for the preparation of interventions in order to increase resilience in early adults who carry out NSSI. This study also discusses the specifics of the definition of NSSI in general from various countries. From this, it can be used by future research to make it easier to define NSSI behavior. Finally, this study also discusses the measuring instruments used to measure resilience, psychological stress and NSSI behavior so that it can provide benefits for future research so that it can be a recommendation in the use of measuring instruments tailored to research samples, both general samples and specific samples.

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