

بناء مقياس لقياس دوافع سلوك إيذاء الذات العمد للمراهقين (MSHI/JD) في مراكز الأحداث المنحرفين في الأردن

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ملخص: هدفت هذه الدراسة إلى بناء مقياس يتمتع بصدق وثبات مناسبين لقياس الدوافع الكامنة وراء إيذاء الذات العمد (MSHI/JD) لدى المراهقين المنحرفين (الأحداث) في الأردن. تم تطبيق المقياس على (31) حدثاً، متوسط أعمارهم 16,3 سنة. ولتحقيق أهداف الدراسة، تم بناء المقياس المكون من جزأين: الجزء الأول ويحوي (12 فقرة)؛ ويتكون الجزء الثاني من (35 فقرة) موزعة على أربعة أبعاد. تم تقدير الثبات للمقياس باستخدام طريقتين: الاختبار/إعادة الاختبار، وكرونباخ ألفا. وتم التحقق من صدق المقياس عن طريق أحكام الخبراء. أشارت النتائج إلى أن الأداة تتمتع بصدق وثبات ضمن القيم المقبولة في الأدب التربوي لقياس الدوافع الكامنة وراء إيذاء الذات العمد (MSHI/JD) لدى المراهقين المنحرفين (الأحداث) في الأردن، ويمكن اعتبارها أداة آمنة لتقييم أذى الذات العمد لدى المراهقين المنحرفين (الأحداث) في الأردن. ومن المؤمل أن يساعد هذا المقياس في إنتاج مقاييس جديدة أكثر شمولاً لأذى الذات. توصي الدراسة باستخدام هذا المقياس على عينة أكبر لتشمل الذكور والإناث.

المصطلحات الأساسية: إيذاء الذات، انحراف الأحداث، الصحة النفسية، الأردن.

Constructing an Instrument to Measure Motives of Self-Harm Behavior Inventory for Juvenile Delinquents in Jordan

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Abstract: The study aimed at constructing a valid and reliable instrument to assess the motives behind self-harm behavior among juvenile delinquents (MSHI/JD). The Motives of Self-Harm Inventory was administered to (31) juvenile delinquents. The mean age of the sample of the study was (16.3) years.

To accomplish the objectives of the study, an instrument was built, which consisted of two parts: part 1 consisted of (12) items, and part 2 consisted of (35) items distributed on (4) dimensions. The reliability index was found by using test- retest and Cronbach Alpha. The validity for this instrument was obtained and assessed by using experts' judgments. The instrument is reliable and valid to measure the inherent motives of deliberate self-harm for juvenile delinquents in Jordan, and it can be safely used to evaluate the motives for deliberate self-harm behavior for the juvenile delinquents in Jordan. Such research may lead to producing new and more comprehensive measures of self-harm. The study recommends conducting a similar study on females' samples.

Key words: Motives, Self-Harm Juvenile Delinquents, Mental health, Jordan.

Introduction

The intentional self-harm behavior (ISHB), which means the direct and intentional destruction of one's own body tissue in the absence of suicidal intent, has become an alarming common behavior among

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adolescents of both sexes and across all racial and ethnic groups (Hilt, Nock, Lloyd-Richardson & Prinstein, 2008).

There is no single definition of self-harm. Self-harm behavior is also called self-mutilation, self-injury, and self-abuse (Lloyd-Richardson, 2010). The behavior is defined as the deliberate, impulsive, repetitive, non-lethal self-harm without suicidal intention (Adams, Rodham & Gavin, 2005; Favazza, 1996).

The guideline of the National Institute for Health and Clinical Excellence (NICE) defines self-harm as "self-poisoning or self-injury, irrespective of the apparent purpose of the act"(NICE, 2004, p.7).

The self-harm behavior is recognized by researchers and clinicians as a deliberate self- cutting or burning to the wrists, arms, legs, head, chest, genitals, and many other parts of the body without the intention of suicide (Adams et al., 2005; Briere & Gil, 1998).

Self-harm is described as a behavioral expression of psychological distress to seek relief from impaired state of mind (Klineberg, Kelly, Stansfeld, & Bhui, 2013).

The common Psychological motives for self-harm behaviors are expression of life stressors, control of emotions or feelings, to prevent suicide (cry for help), diverting attention of internal negative thoughts, to avoid abusive patterns whether they are physical or sexual, and possible manipulation (Klonsky, 2007).

The psychoanalytic theory indicated that the self-harm behavior can be viewed as the feelings of guilt resulting from the inability of the ego to resolve conflict between the super ego (the moral principal) and the biological drive (the Id). The Gestalt theory indicated that self-harm behavior can be viewed as the individual's needs have not been met. The Reality theory indicated that when an individual is unable to face reality, self-harm can be viewed as inability to deal with real life issues (Corey, 1986).

The function of (ISHB) is to release emotional pain, anxiety, anger, to rebel against authority, and to feel in control. The behavior should not be a part of religious practice, custom or a form of art, and should not be socially acceptable or appropriate (Adams et al., 2005).

Depends on what we call self-harm behavior (ISHB), some individuals who go looking for fights are looking to get hurt. Some other individuals' drives are recklessly looking to get hurt. Some

researchers indicated that substance abuse and sexual risk-taking are considered examples of self-harm behavior (Adams et al., 2005; Ullman, & Brecklin, 2003).

The act of self-harm may include the following behaviors: intentional cutting of the skin, burning of the skin, pulling hair, swallowing toxic substances, and breaking bones. Tattoos and social body piercing are not considered to be ISHB because they are usually done by others and they are not done for the purpose of self-harm (Whitlock, Powers, & Eckenrode, 2006).

Cutting on the body (wrist, hand, stomach and thigh) is the most common and well documented form of self-harm among young adults (Laye-Gindhu & Schonert-Reichl, 2005; Whitlock et al., 2006).

People who engage in (ISHB) often keep their action secret and hidden, and they never seek treatment. Self-harm as a maladaptive behavior is a mysterious and misunderstood phenomena. This type of behavior is usually conducted in a private and secret way. This triggers the feeling of isolation, alienation and shame. The self-harmers do not seek treatment usually causing the behavior to go unreported (Alderman, 1997).

The people with self-harm behavior are often seen by others as manipulative and their act is viewed as an attempt to get their needs met (Dilazzero, 2003; Klonsky, 2007).

No one exactly knows when self-harm behavior starts in life or how long it lasts. It is rare under the age of twelve, but its incidence increases rapidly throughout the early teenage years, particularly among girls (Hawton, Hall, Simkin, Bale & Bond, 2003).

However, some studies indicated that self-harm starts at early adolescence and it may last weeks or years. The onset of (ISHB) usually occurs during adolescence and is often associated with childhood abuse, sexual, physical, emotional, neglect, and bullying or violence (Borril, Snow, Medlicott, Teers, & Paton, 2005; Laye-Gindhu & Schonert-Reichl, 2005).

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) listed the (ISHB) as a symptom of borderline personality disorder, depressive and impulse control disorder (APA-2000).

Prevalence Rates of Self-harm Behavior (ISHB)

The intentional self-harm behavior (ISHB) appears to be rising among young people (Fortune & Hawton, 2005), with evidence suggesting that it begins earlier in the childhood and adolescence years (White Kress, Gibson & Reynolds, 2004). A recent school-based research in the UK and Australia suggests that much more self-harm in children and adolescents occurs in the community than what is indicated in medical records (De Leo & Heller, 2004; Hawton, Rodham, Evans & Weatherall, 2002)? Also a number of researchers have noted that a large percentage of adolescents repeat self-harm behavior in a short period of time (Hill,1995) and 10% of them will repeat the act within a year(Hawton et at.,1982).

Prevalence rates differ between Western and Eastern countries. Among Western countries, the prevalence is 13.2% in England and 14% in Scotland (OConnor, Rasmussen, Miles, &Hawton, 2009). On the other hand, among Eastern countries, the rate is 5.1% in China (Liu, Tein, Zhao & Sandler, 2005), 9.2% in Korea (Shin et al., 2009), and 9.9% in Japan (Matsumoto et al., 2008). Adolescents are increasingly engaged in this behavior (Hawton, Fagg & Simkin, 1996; Ross & Heath, 2002). In the United States, 15.9% of high school students were self-harmed in 2004 (Muehlenkamp & Gutierrez, 2004), but in 2007, self-harm behavior was performed by 46.5% of adolescents (Lloyd-Richardson, Perrine, Dierker & Kelley, 2007). The prevalence rate of (ISHB) within the general population ranges from 12% to 38% (Gratz, Sheree & Roemer, 2002; Favazza, 1996).

The direct and intentional destruction of one's own body tissue in the absence of any intent to die is becoming an alarming common behavior in adolescents of both sexes and across all racial and ethnic groups, with estimated rates of 13%-45% in community and 40%- 60% in clinical samples (Hilt et al., 2008).

The findings of the studies are mixed in terms of gender differences. Some studies support the assumption that females are more likely to self-harm than males (Borril et al., 2005; Laye-Gindhu & Schonert-Reichl, 2005; Whitlock et al., 2006).

While Ross and Heath (2002) saw that females are more likely to engage in self-harm behavior than males, because women are not

socialized to express violence externally toward others, and when confronted with negative feelings, such as negative thoughts, and rage, they tend to vent or act internally toward themselves or body. Men are generally brought up to act out and hold their emotion, while females on the other hand are socially allowed to express feelings.

Women often engage in (ISHB) when they experience family disruption and trauma in their lives such as: loss of parents, financial instability and dysfunctional family relationships, which explains the higher rate of (ISHB) among females (Gladstone et al., 2004).

However some other studies indicated that males and females are equally engaged in self-harm behavior and no significant difference were found between genders regarding ISHB (Garrison, Addy, Mckeown & Cuffe, 1993; Gratz, 2001; Klonsky, Oltmanns & Turkeimer 2003; Muehlenkamp & Gutierrez, 2004). Other studies found no gender differences for either children or adults (Briere & Gil, 1998).

Laye-Gindhu and Schonert-Reichl's (2005) study of a sample of 13-18 year olds of Canadian community suggested that girls reported self-harming alone, because of self-punishment, depression or loneliness, whereas boys reported self-harming alone or with peers, and did so in order to communicate with or influence others, or out of boredom?

Tyler, Whitbeck, Hoyt & Johnson (2003) conducted a study based on interviews with 428 homeless and runaway youth aged 16 to 19 years in 4 Midwestern states; the study revealed widespread prevalence of self-mutilation among these young people.

Multi-variant analysis indicated that sexual abuse, deviant subsistence strategies, and meeting diagnostic criteria for depression were positively associated with self-mutilation. The results of the study found no significant difference between males and females in terms of the number of different self-injurious acts; also, the study revealed that age and sexual orientation were significantly related to self-harm?

There are many situations where researchers wish to explore sensitive issues in depth, but they are aware that potential participants may be unwilling to disclose their own personal behaviors or attitudes. Non suicidal self-harm is an example of an issue where non-disclosure is important, not only because it contributes to inaccurate prevalence rates but also because under reporting by particular groups

may limit their access to appropriate support services. The act of self-harm often occurs in privacy and secrecy, which makes it difficult to identify how common is (ISHB) among people (Dear, Thomson, Hall & Howells, 2001; Kilty, 2006). Therefore, it is difficult to estimate the prevalence of self-harm behavior among adolescents in either the community or in correctional institutions for many reasons:

The lack of universal definition of (ISHB), the lack of systematic data collection methods, the stigma and shame that are associated with (ISHB), and the behavior often occurs in isolation and is kept hidden for many reasons (Dear et al., 2001; Kilty, 2006).

The onset of self-harm behavior usually occurs during adolescence and peak between the ages of 16 to 25. The behavior stops at the end of 30 years of age without treatment or interventions (Alderman, 1997; Favazza, 1996). There are low rates of help-seeking among adolescents who commit self-harm. Community-based studies reported that only 10-13% of adolescents who were self-harmed were presented to hospital (Hawton et al., 2002).

How Do the Phenomena of (ISHB) Occur?

The causes of the social and psychological phenomena of (ISHB) are still not clear nor are the proper treatments for those who are at risk of harming themselves. According to Nock (2010), several processes may be operating in the selection of (ISHB) as a coping strategy: first, adolescents are highly affected by the media and readily absorb its messages. Second, peers and siblings are another primary source of influence. There are complex associations between (ISHB) and peer (ISHB) girls (Prinstein et al., 2010). In addition to media or peer influences, adolescents may choose to engage in (ISHB) when they try to give voice to their pain through speaking, crying or screaming (Nock & Cha, 2009). Research suggests that schools may influence self-harming behavior in children (Prinstein et al., 2010; Walsh, 2006).

The Factors Related to (ISHB):

Most studies on (ISHB) have been conducted in schools, hospitals and community settings, with results showing that (ISHB) is related to the following risk factors: anxiety, smoking, serious boyfriend/girlfriends problems (O'Connor et al., 2009), depression (Hawton et al., 1996),

McLaughlin, Miller & Warwick, 1996), poor emotional regulation, and a poor family emotional climate (Sim, Adrian, Zeman, Cassano, & Friedrich., 2009). However, few studies have been conducted on adolescents in juvenile detention houses; in the Far Eastern country of Japan, a study that was conducted on detained youth showed a prevalence rate of (ISHB) of 35.8% (Matsumoto et al., 2005) compared to 9.9% of community adolescents. Given the higher rate of (ISHB) found in a detention house, this study recruited participants from a juvenile detention house in a northern part of Taiwan in order to ascertain the factors associated with (ISHB) in this special population.

Poor family functioning including domestic violence, physical and sexual violence, divorce and separation of parents were found to be highly related to (ISHB) (Dear et al., 2001; Gladstone et al., 2004; Livingston, 1997; Tyler et al., 2003).

The Relationship between Self-harm Behaviors and Suicidal Ideation:

From the review of related literature, (ISHB) cannot be easily separated from suicide intention. The relationship between self-harm behaviors and suicidal ideation are not clear. Many studies concluded that self-harm behavior is a means to avoid suicide or cry for help (Klonsky, 2007; Muehlenkamp & Gutierrez, 2004; Nock, Joiner, Gordon, Loyd-Richardson & Prinstein, 2006). However, some studies linked suicide to self-harm behaviors; individuals with a history of (ISHB) were found to be nine times more likely to attempt suicide, and seven times to report suicidal thoughts and six times to report suicidal plan more than people who did not engage in (ISHB) (Whitlock & Knox, 2007).

The methods of suicide or (ISHB) of students are not limited. However, the most common and frequently reported method for suicide attempts was the act of hanging oneself, while the most frequently reported method for (ISHB) was cutting oneself. (Dear et al., 2001).

The common motives for committing (ISHB) are: expressing distress, controlling emotions or feelings, controlling needs, reducing tension, and responding to peer or social reinforcement (Suyemoto, 1998).

Some studies indicated that some individuals harm themselves not for suicidal intention; it is rather being done for self-soothing: to feel the pain on the outside instead of the inside, to cope with negative feelings, to express anger, or to feel alive and real (Dilazzero, 2003; Klonsky, 2007).

Nevertheless, it has been shown that these types of (ISHB) are considered as predictors of later suicide (Cooper et al., 2005).

Following an act of self-harm, the rate of suicide increases up to 50 and 100 times of the rate of suicide in the general population (Hawton, Zahl & Weatherall, 2003; Owens, Horrocks & House, 2002). Men who engage in self-harm are more than twice as likely to die by suicide as women, and the risk increases greatly with age for both genders (Hawton, Zahl et al., 2003). It has been estimated that one-quarter of all people who die by suicide would have attended a general hospital, following an act of self-harm in the previous year (Owens, Whitbeck & House, 1994).

The Common Reasons Behind (ISHB):

People use self-harm as a way to communicate or to express some negative feelings or thoughts that they can't talk to others about it or deal with it effectively (Whitlock & Knox, 2007).

Many researchers indicated that the common reasons behind (ISHB) are: to get people to react to their action, to get people to care for them, to make other people feel guilty, to drive people away, to get away from stress and responsibility, to manipulate situations or people, to meet their needs, and to avoid suicide (Klonsky, 2007; Dilazzer, 2003; Whitlock & Knox, 2007).

Recent or past triggering events can be good common causes for (ISHB), such as: being rejected by someone who is important to them, feeling wrong or at fault in some way, being blamed for something that they had no control over, being physically or sexually abused, being bullied or intimidated by others (Boril, et al., 2005; Laye-Gindhu, & Schonert-Reichl, 2005).

Psychopathology is found to be an important factor that leads to (ISHB). Mental illness, such as depression, anxiety, personality disorders, eating disorders, substance abuse, post-traumatic stress disorders, and depersonalization disorders, are found to be important factors that lead to (ISHB) (Dear, et al., 2001).

Research suggests the following reasons and explanations for self-harm behaviors:

- Providing relief from emptiness or depression and easing anxiety or tensions.

- Relieving anger, preventing suicide, crying for help or demanding support.
- Preventing something bad from happening, and possible manipulation.
- Coping with the feeling of alienation, diverting attention from internal negative feelings, eating disorder, substance abuse, post-traumatic stress, border line personality disorder (Dilazzero, 2003; Klonsky, 2007).

Self-harm has been related to stressful life events. It is viewed as a coping and survival mechanism to deal with internal and external emotional pain. It is the only choice from limited options to make uncomfortable and intolerable feelings go away temporarily (Adams, et al., 2005; Borril et al., 2005; Nock, & Prinstein, 2004).

People who self-harm reported more avoidance and not facing realities or problems as a coping strategy. They perceive themselves as lacking control over problem solving techniques or options. This feeling of disempowerment may explain their (ISHB) (Haines, & Williams, 1997).

(ISHB) is found to be significantly related to childhood history of sexual abuse, physical abuse, and parental neglect (Briere & Gil, 1998).

Peer conflict problems with intimacy, negative body images and body alienation were found to be strong predictors of (ISHB) (Darche, 1990).

Most functions of (ISHB) are to express and control feelings, release tensions, control racing thoughts, decrease or eliminate depression, and avoid unwanted flashback memories or thoughts (Briere & Gil, 1998; Nock & Prinstein, 2004).

Homeless youth often suffer from the lack of stable homes, suitable residences, and supportive caregivers. The high rates of abuse, parents rejection, and lack of empathy by caregivers cause the homeless youth not to trust others and not to ask for help. Surviving in the street environment, having mental and physical problems, and many other maltreatments are all strong factors to drive many youth to harm themselves (Tyler et al., 2003; Whitbeck, Hoyt & Bao, 2000).

The act of (ISHB) can be contagious; adolescents are more likely to

engage in the act of contiguous (ISHB) for the purpose of peer modeling in order to influence others and to prove that they are serious mutilators and not seeking attentions (Crouch, & Wright, 2004).

Measurement of Self Harm

There were many measures of self-harm (Conterio & Lader 1998; Zlotnick et al, 1996; Sansone, Wiederman & Sansone, 1998), but some of these measures use dichotomous self-harm variable, which indicates the presence or absence of self-harm (Baril, Kora, Yuksel & Sezgin, 1998; Schaffer, Carroll & Abramowitz, 1982). However, it is likely that there are clinically significant differences between individuals who engaged in self-harm behaviors once or twice in their lives, which makes the frequency of self-harm an important area of assessment.

Other researchers have measured deliberated self-harm through the use of structured and semi-structured clinical interviews originally devised for other purposes (Demitrack, Putnam, Brewerton, Brandet & Gold, 1990).

Some researchers have acknowledged the need for a standardized and validated measure of self-harm (Simeon et al, 1992), particularly in Jordan.

Significance of the Study

There is a critical need to better understand the motivations of self-harming individuals in an effort to tailor accurate assessments, self-harm prevention, and appropriate clinical treatment. As proximal predictors of self-harming behaviors, intentions may be cognitive and/or affective factors that can become direct targets of interventions.

Relatively little attention has been paid to develop a self-report measure of intentional self-harm behavior, particularly in Arab countries (Clark, 1993; Livesley, Jackson, & Schroeder, 1989).

The primary purpose of this study is to explore the psychometric properties of the deliberated self-harm inventory, thereby aiding in the measure of deliberated self-harm. This study is the first to evaluate the psychometric properties of the motives for self-harm inventory of juvenile delinquents in Jordan. The measures of self-harm developed by the researchers in this study are behaviorally based on the conceptual definition of deliberate self-harm as the deliberate, direct destruction or

alteration of body tissue without conscious suicidal intent, which results in an injury that is severe enough to cause tissue damage. Motives for Intentional Self-Harm Behavior (ISHB) have not been fully investigated among adolescents and children, especially in Jordan. The aim of this study is to develop an instrument to investigate the motives for self-harm behavior among the population of juvenile delinquents in Jordan, and in order for the screening to be feasible, and the instrument to be effective, it must be reliable and accurate.

There are many researchers who put emphasis on the value and importance of involving children as participants in research studies (Davie, 1996).

For many people who are not affiliate to the field of counseling and psychology, the act of self-harm is puzzling and it provokes fear and misunderstanding.

This study intends to clarify this misunderstanding and attempt to answer many questions about the motives and the reasons behind the intentional self-harm behavior, especially among adolescents in Jordan. There are many people who injure themselves for varying reasons and this research shall provide some insights for counselors, educators and parents who may be involved with adolescents or children who commit self-injury. If developed, the instrument of investigation of the motives for self-harm behavior introduced in this study shall provide a useful tool for both clinicians and researchersto measure the extent of self-harm experiences.

The aims of this study are as follows:

1 - To construct a (valid and reliable)suitable instrument to measure the motives of self-harm behaviorinventory for juvenile delinquents in Jordan.

2 - To introduce and report on the psychometric properties of the new instrument thatmeasures the Motives of Self-Harm Inventory for juvenile delinquents.

This study has been developed with the assumption that juvenile delinquents will answer the questions accurately and honestly to the best of their knowledge.

Limitations

One of the limitations of this study is the small size of the sample. The second limitation is that the sample has no females because there were no self-harmed females at the time of the study in the “Females Juvenile Delinquents Center” in Amman.

Definition of terms

The following terms were defined operationally to provide meaningful, functional, and coherent definitions to be used in this study:

1 - **Self-Harm:** refers to intentional self-mutilation, self-injury, and self-abuse without suicidal intentions. Tattoos and social body piercing are not considered as examples of self-harm in this study.

2 - **Motives of Self-Harm:** refer to the reasons or goals for self-harm behavior.

3 - **Juvenile delinquents:** refer to the children or adolescents under the age of eighteen who committed acts that break the law.

Methodology and Procedure

Participants

The participants in this study are male juvenile delinquents resident at one of the centers for juvenile delinquents in Jordan; there are five centers for juvenile delinquents in Jordan: one for females and it is located in Amman, and the others are for males, one of these is in Maan (south of Jordan); two of them are at the middle regions of Jordan, and the last one is in Irbid (north of Jordan).

The purpose sample for this study was selected on a voluntary basis, and the participants were from the juvenile delinquents resident at Mohammad Bin Al-qasem Center in Irbid. The 65 juvenile delinquents were fully informed about the purpose of the study; thirty four participants were excluded for they did not commit any acts of self-harm, or they were engaged only once or twice in self-harm behaviors in their lives. Hence, the sample comprised thirty-one juvenile delinquents (47.69%). Participation was totally voluntary, and the age of participants ranged between 13 and 17 years of age ($M = 16.3$ years, $SD = 10.19$). Among those (77.4%) were from poor families (monthly income > 500 JDs), and the parents of 35.5% of the sample were either divorced or

deceased; 19.4% of the sample were illiterate. Of the 31 participants in the study, 38.7% were drug addicts. Twenty two participants reported no abuse, and 9 reported physical and/or sexual abuse. Eighty-eight percent of the participants engaged in cutting and 12% in a variety of other methods.

The supervisor and the manager of Mohammad Bin Al-qasem Center in Irbid were contacted and visited by the researchers of this study and they were informed about the research during the first visit. On their second visit, the researchers met with the juvenile delinquents, introduced them to the research, and explained its goals and objectives and the meaning of intentional self-harm. Then each one of them was asked a question in order to assess their self-harming behavior (i.e. "Have you ever hurt yourself on purpose in any way whether by cutting yourself or burning, to the wrist, arms, legs, head, chest, genitals, and any other parts of your body without the intention of suicide?". If they answered by yes, they were then asked another question (i.e. When was the first time?).

The study included only those juvenile delinquents, who were involved in self-harm behavior for more than twice in their lives. The juvenile delinquents were informed about the purpose of the study and that they had the right to agree to participate or to refuse participation. Also, they were informed that the information they would disclose and share during the study shall remain confidential. All of them gave their consent to participate in the research.

The reliability and validity of the research instrument:

In this study, two instruments were used to measure intentional self-harm behavior. The first instrument was designed to assess the methods, frequency and functions of self-reported (DSHI), and it consisted of a checklist of (DSHI) in which respondents were asked if they were purposefully engaged in (DSHI) behaviors within the past year and, if so, the frequency of that engagement. The second instrument of the (DSHI) consisted of 35 statements that assess the motivations for (DSHI), presented in a checklist format and rated on a five-point Likert scale that ranges from strongly disagree to strongly agree. This part of the instrument was the Functional Assessment of Self-Mutilation (FASM) that was developed by Lloyd-Richardson, Kelly, and Hope (1997).

Both instruments consist of important elements that will be included

in the assessment structure of the instrument implemented in this current study: the type of self-injury, age at onset, duration, frequency as well as the use of tools and the psychological functioning of self-harm.

Related literature in the field of deliberate self-harm behavior was reviewed and utilized in this study. Items were drawn from more commonly described theories of (DSHI), such as affect-regulation, interpersonal influence, anti-dissociation/feeling-generation, and self-punishment functions.

A panel of 10 academic experts from the Department of Psychology and Counseling Education at Yarmouk University convened to consider the face validity of the instruments. The first version of the two instruments was applied on 20 juvenile delinquents of the selected sample in order to test the clarity of items. Items from the first version (17 and 43 for part 1 (DSHI) and part 2 (FASM) respectively) were removed if they showed poor facility, or if they were judged by two experts as not suitable.

At the beginning, the instrument consisted of (17 and 43 items for part 1 (DSHI) and part 2 (FASM) respectively). The development of the instrument in part 2 began with 43 items covering a wide range of internal and external aspects of content areas related to the motives of self-harm behavior. A five-point Likert Scale was used to enable juvenile delinquents to rate the degree to which each statement applied to them. The suggestions from the professors contributed in providing the validity for this instrument by using feedback correction regarding the length of the instrument, the suitable language of the instrument, and whether the item measures what it is supposed to measure. After all the corrections by the specialized professors, the final instrument consisted of 12 and 35 items for part1, part 2 respectively. They all agreed that the two parts of the instrument appeared to measure the motives and the intentions of self-harm behavior in the population of juvenile delinquents.

The following are the main dimensions for self-harm behavior in this instrument (part 2)

- The first dimension is: mental illness as a reason or motive for self-harm behavior (Q1- 19 items).
- The second dimension is: to control feeling and emotions as reasons or motives for self-harm behavior (Q20-22).

- The third dimension is: dealing with the environment of juvenile delinquents as a reason or motive for self-harm behavior (Q23- 28).

- The fourth dimension is: lack of family support or bonding as a reason for self-harm behavior (Q 29-35).

After the descriptions of the study, written informed consents were obtained from the juvenile officer and participants.

General information and demographical questions were placed in the front of the instrument and they were given in its final version (see appendix 1). The instrument was translated into Arabic. A two-stage translation was carried out by two academic English language teachers so that the juvenile delinquents could read or understand the items; in case the participant was illiterate, the measures were administrated orally.

The juvenile delinquents responded to each of the items according to a five-points Likert scale ranging from "Strongly disagree" to " Strongly agree". Strongly disagree is scored as a 1.0 and strongly agree is scored as a 5.0. The statements for the items were worded positively so that a higher score indicates more positive response:

1 = Strongly Disagree. 2 = Disagree. 3 = Undecided. 4 = Agree. 5 = Strongly Agree

The reliability of the instrument was tested by two methods: the first was by test retest, and the second by internal consistency on a random sample of 37 juvenile delinquents at Mohammad Bin Al-qasem Center in Irbed. Their ages ranged from 14 to 17 years. The test retest was .965, while the internal consistency was evaluated for the reliability of this instrument using the Cronbach's Alpha and it was .939, which were considered to be high and accepted values. The instrument provided a reliable and valid measure of the motives for deliberate self-harm for juvenile delinquents in Jordan and its results can be trusted to measure what it was supposed to measure.

Data analysis:

Descriptive statistics were generated for individual items and the total scale, and then an exploratory factor analysis using the principal components method with varimax rotation was conducted in order to empirically examine the underlying structures. Factors were selected for inclusion if they had an eigenvalue greater than one (Hattie, 1985).

Results:

Result of the second aim

To achieve the second aim regarding the psychometric properties of part 2 of the instrument, “Corrected Item-Total Correlation and Cronbach’s Alpha if Item Deleted” were calculated to know the degree of efficiency for the items; table 1 below demonstrates this result.

Table 1
Corrected Item-Total Correlation and Cronbach’s Alpha if Item Deleted
for Items with Total Scale for Part 2 of Instrument

Cronbach’s Alpha if Item Deleted	Corrected Item-Total Correlation	Item #	Cronbach’s Alpha if Item Deleted	Corrected Item-Total Correlation	Item #
.938	.568	t19	.941	.140	t1
.940	.402	t20	.938	.427	t2
.938	.169	t21	.938	.477	t3
.938	.426	t22	.940	.182	t4
.936	.473	t23	.937	.525	t5
.936	.636	t24	.939	.350	t6
.935	.682	t25	.937	.566	t7
.937	.719	t26	.938	.424	t8
.935	.566	t27	.937	.547	t9
.936	.732	t28	.938	.401	t10
.937	.624	t29	.938	.446	t11
.937	.594	t30	.936	.674	t12
.936	.583	t31	.937	.567	t13
.936	.700	t32	.935	.724	t14
.935	.702	t33	.936	.615	t15
.935	.747	t34	.937	.546	t16
.935	.750	t35	.937	.591	t17
.939		Ttot	.937	.472	t18

The values of corrected item-total correlation ranged from .140 to .750, so the items (1, 4, 21), whose correlation was less than 0.20, may not be suitable or they may need revision. Therefore, all items except items (1, 4, & 21) had a correlation bigger than 0.20. According to Nunnally (cited in Hattie, 1985), these values show that these items measure one dimension.

Also the values of correlations between part 2 of the instrument and its dimensions were provided by using Pearson correlations; table 2 illustrates that:

Table 2
Pearson Correlations between the Instrument and its Dimensions

TOT	D4	D3	D2	D1	
.963**	.739**	.751**	.582**	1	D1
.499**	.142	.220	1	.	D2
	.870**	.793**	1		D3
.867**	1	.	.		D4
1	.				TOT

** Correlation is significant at the 0.01 level (2-tailed).

It can be noted that the correlation coefficients between the dimensions lie between .142 and .793, and all values were significant except those related to the second dimension. Also, all dimensions correlated with the instrument more strongly than their correlation with each other.

Results of the factor analysis of the participants' data on the motives for self-harm behavior inventory part 1 are shown in table 3 below.

Table 3
Results of Factor Analysis for Part 1 of Instrument

% Cumulative	% of Variance	Eigenvalues	Factor
30.449	30.449	3.654	1
46.808	16.359	1.963	2
60.730	13.922	1.671	3
71.366	10.636	1.276	4

Four factors were extracted: the first factor explained 30.4497% of variance, and all four factors explained 71.366% of variance; also, the eigenvalue for the first factor was 3.654, and the ratio of the first eigenvalue to the second eigenvalue was 1.864, and the ratio of value of the difference between the first and the second eigenvalues to the difference between the second and the third eigenvalues was 5.791. All of these indices satisfy the uni-dimensionality of the scale(Hambleton&Swaminathan,1985; Hattie, 1985), which means that these results illustrate that the instrument measures the motives for self-harm behavior. In addition, all extracted factors were accepted since they met the previous criteria (i.e. eigenvalue > 1, accounted for > 5% of the variance).

Table 4 below shows the results of the factor analysis for the data of the participants on the motives for self-harm behavior inventory part 2.

Table 4
Results of Factor Analysis for Part 2 of Instrument

Cumulative %	of Variance %	Eigen values	Factor
35.457	35.457	12.410	1
49.119	13.662	4.782	2
56.750	7.632	2.671	3
62.786	6.035	2.112	4
67.841	5.056	1.770	5
72.145	4.303	1.506	6
75.763	3.618	1.266	7
79.341	3.578	1.252	8
82.487	3.146	1.101	9

Nine factors were extracted; the first factor explained 35.457% of variance, and all nine factors explained 82.487% of variance. The eigenvalue for the first factor was 12.410, for the second factor it was 4.782, for the third factor it was 2.671, and for the ninth factor it was 1.101. According to (Lord, 1980) this satisfies the unidimensionality of the scale. Also, the eigenvalue for the first factor was 12.410, and the ratio of the first eigenvalue to the second eigenvalue was 2.595, and the ratio of value of the difference between the first and the second

eigenvalues to the difference between the second and the third eigenvalues was 3.6135. All of these indices satisfy the uni-dimensionality of the scale (Hambleton&Swaminathan,1985; Hattie, 1985), which means that these results illustrate that the instrument measure motives for self-harm behavior.

As shown in figure 1, examination of a Scree Plot was used to decide the number of factors to retain, and also to illustrate the unidimensionality of the instrument part 2; the figure shows that the eigenvalue for the first factor was differentiated apparently from the remaining factors

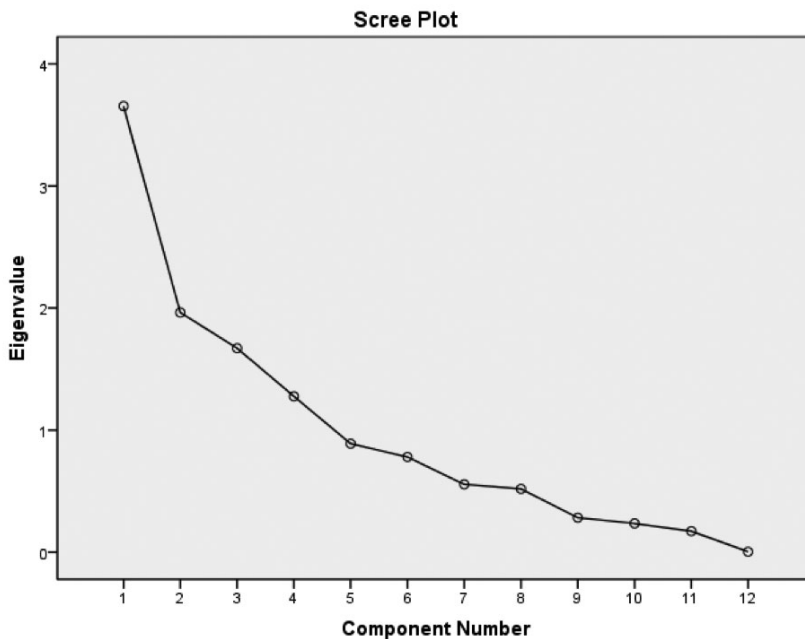


Figure 1: Scree Plot for the eigenvalues for factors of the instrument part 2

Conclusions and Recommendations

This research focuses on self-harm behavior in juvenile delinquents. It provides vital information about self-harm and the reasons why a person may be engaged in this type of behavior which shall help counselors working with adolescents who self-harm to learn how to handle such situations.

A primary purpose of the current research was to construct a suitable (valid and reliable) instrument to investigate the motives of juvenile delinquents for self-harm behavior in Jordan.

There is preliminary evidence here that the proposed instrument is quite robust in psychometric terms; in particular, it has face validity and is internally consistent.

The psychometric test results support the reliability and validity of the (ISHB) as a measure of self-harm intentions of juvenile delinquents. The internal consistency was adequate for the total instrument and its dimensions.

The correlations between item response and total scale indicate that (ISHB) is a reliable measure.

The factor analysis and subscale correlations supported the adaptive reasons of self-harm as theorized by the literature.

The results indicate that (ISHB) is indeed prevalent, occurring in 47.69% of the sample. Seventy-one percent of these, or 33.8% of the overall sample, indicated moderate to severe (ISHB) in the past year, which was most commonly involved cutting different areas of the body. This prevalent rate is generally higher than the rate provided in earlier studies of adolescent community samples (Ross & Heath, 2002; Muehlenkamp & Gutierrez, 2004; Gindhu & Schonert-Reichl, 2005). Nevertheless, it is consistent with the rates reported in one study of college students, with 38% reporting a lifetime history of (ISHB) (Gratz et al. 2002), and with 46% reporting of (ISHB) (Lloyd-Richardson, Perrine, Dierker & Kelly, 2007), and less than the rates reported in a study, with more than two thirds of adolescents sample had engaged in some form of (ISHB). This may be due to the fact that in these samples the youth were at a transition period to adolescence in which critical depressive symptoms in particular may exist (Hankin & Abramson, 2001).

According to the second aim concerning the psychometric properties of new instrument (the motives of self-harm inventory for juvenile delinquents), in lighting the results of the study, some facts about the study were derived; like high and significant correlation coefficients between the instrument and its dimensions, also the indices of validity and reliability of the instrument, and the instrument possesses good internal consistency, also the result of factor analysis, all of these make

the use of the instrument suitable for evaluation purposes in future studies and researches, and in using it in adolescent society to help the officers, teachers and counselors to detect and manipulate this bad behavior.

In conclusion, an alarming large number of today's adolescents tend to harm themselves as a strategy for managing emotions, relationships, and life circumstances. Mental health counselors need to be prepared to help their clients by understanding the functions of this behavior, generating more effective solutions to solve their tensions, and learning the skills that will enhance their entire quality of life.

Such research may lead to produce new and more comprehensive measures of self-harm. Further research is needed to establish the validity of the instrument; replication of the results of this study with different samples and across different circumstances is deemed necessary to ensure the robustness of the findings and the validity of the measure for other populations.

The instrument of the current research can be safely used to evaluate the motives for deliberate self-harm behavior for the juvenile delinquents in Jordan. This instrument will in return help staff to understand the behavior of intentional self-harm among juvenile delinquents. Furthermore, the instrument shall help staff, administrators and clinicians to develop an action plan and treatment for juvenile delinquents. This instrument emerges as promising tool which is worth further empirical investigation.

Although these findings provide preliminary support to (ISHB), being instrumental in measuring juvenile delinquents self-harm, caution must be considered in interpreting the results. The current study was conducted with a small number of voluntary male participants that limits the generalizability of its findings.

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