

Psycho-Social Determinants of Youths' Suicidal Behaviors: Mixed-Methods Approach

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Abstract

Background: By nature, youths are more attracted to suicidal behaviors and less able to generate alternatives when faced with stress; suicide accounts for approximately one-third of all deaths among youths. Therefore, the present study **aimed to** investigate psycho-social risk and protective factors associated with suicidal behaviors among youth. **Subjects and methods:** A concurrent mixed-methods descriptive study was used, where 364 youths were enrolled using a stratified multi-stage cluster sampling technique. Focus group discussions were conducted to explore youths' perception of suicidal behaviors. Four tools were used to collect quantitative data. They were: Youth Profile Questionnaire composed of two parts (Socio-demographic Data & Youth Characteristics), Suicide Behaviors Questionnaire-Revised (SBQ-R), Risk Factors Questionnaire composed of three parts (Life Stressors Questionnaire, Interpersonal Needs Questionnaire [INQ], and NEO-Five Factor Inventory [NEO-FFI]), and Protective Factors Questionnaire including (Resilience Scale & Multi-dimensional Scale of Perceived Social Support [MSPSS]). **Results:** Qualitative findings were discussed under two main categories: risk factors leading to suicidal behaviors (behaviors, emotional distress, interpersonal influences, constant pressures, and inescapable difficulties), and factors protecting against suicidal behaviors (individual and societal factors). Quantitative findings revealed that life stressors, interpersonal needs, and neuroticism were statistically significantly positively associated with suicidal behaviors, while resilience and perceived social support had a statistically significantly negative association. **Conclusion:** This mixed-methods approach underscored the role of psychosocial determinants in youths'

suicidal behaviors. It also suggests tailoring of psychosocial determinants in youths' suicide prevention efforts.

Key words: Suicidal behaviors, youths, mixed methods, psycho-social determinants, and risk and protective factors.

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What is already known?

- Suicide is the second leading cause of deaths among youths aged (18-29).
- There are 25 attempts and hundreds of thoughts for every suicide case.
- The majority of research has concentrated on suicidality risk factors, with little attention paid to protective factors that can help alleviate the negative effects of stresses.

What this paper adds?

- Mixed-methods approach provides more clear and comprehensive substantive understanding of youths' suicidal behaviors.
- Psycho-social risk and protective factors are significant factors that predict suicidal behaviors among youths.
- protective factors are an important key need to be tailored in fulfilling the special needs for every youth.

1. Introduction

Suicide is one of those unsolved psychosocial issues that still invading various societies globally. It is a tragedy that does continue to cost lives and affect the health and wellbeing of many millions of people through the loss of loved ones or suicide attempts (CDC, 2020). It is a serious public health concern and a high priority on the global public health agenda. In this context, the World Health Organization (WHO) established suicide as a key indicator of Sustainable Development Goal 3 “the promotion of health and well-being” (WHO, 2019). It is prevalent among all age groups in the population, yet, adolescence and youths' category by nature are more attracted to suicide and its related behaviors as they are less able to generate alternatives when faced with stress (Bilsen, 2018).

With reference to youths, suicide is the second leading cause of death among those aged between 15 and 29 worldwide, almost one third of all deaths for both sexes. Of these suicides, 79% of all cases occur in low and middle-income countries in which about 90% of its population are youths (WHO, 2019). Moreover, suicide represents a broad term that encompasses an equally diverse range of intentionality, motivation as well as behavioral presentation and manifests in various forms, most importantly suicidal thoughts and attempts (Ong, 2020). According to the Substance Abuse and Mental Health Services

Administration (SAMHSA) (2019) in its National Survey on Drug Use and Health (NSDUH); across all age groups, the prevalence of suicidal thoughts and attempts was the highest among youth with 12.0 million aged 18 or older.

Accordingly, addressing youths' suicidal behaviors is a must and one of the main issues for effective prevention measures and this can be achieved through gaining as much insight as possible in the determinants (risk/protection factors) contributing to suicidal behaviors among youths (**Bilsen, 2018**). Identifying risk as well as protective factors can maximize the chances of eradicating such behaviors in both clinical samples and broadly in a population with marked risks (**Borschmann et al., 2018; Coppersmith et al., 2019**). For these reasons, vast research attempts to elucidate suicidal behaviors have been established. However, Suicidal behaviors prediction is a tough, if not impossible, task. Besides, traditional statistical methods of analysis are limited in their ability to analyze such complex phenomenon (**Franklin et al., 2017**).

Within the latter, **Kral, Links & Bergmans (2012)** claimed that use of quantitative studies to understand the complexities of suicide is limited and therefore advocated the combination of quantitative and qualitative studies (mixed-methods study) in order to expand knowledge through integrating theory-derived variables and subjectivity as a tool of investigation as it is required for a multidimensional and multidisciplinary approach to suicidality. Furthermore, suicidal behaviors' assessment may be more thorough if it is based on a framework that incorporates theoretical and evidence-based long/short-term as well as distal/proximal factors known to contribute to suicidal behaviors (**Cohen et al., 2019**).

One emerged framework that is regarded as a comprehensive theory explaining suicidal behaviors is the Interpersonal Psychological Theory of Suicidal Behaviors (IPTs) which emphasizes both the role of social and psychological factors. According to IPTs, suicide ideation is triggered when an individual feels thwarted belongingness, when they no longer form meaningful relationships with their family, friends, or other important groups, and perceived burdensomeness, when an individual's existence is no longer required by friends, family, or society, and the individual feels burdened, at the same time. While, Suicide attempts are made by people who have both suicidal ideation and acquired suicidal capability, which allows them to commit fatal suicides, the most important source of capability coming from previous suicide attempts (**Joiner, 2005; Van Orden et al., 2010**).

In summary, suicide ideation has been the focus of previous research on suicide; however, for a more comprehensive understanding of the topic, suicide ideation and suicide attempts should be considered concurrently, thus suicide attempts can then be more elaborately explained by evaluating suicidal ideation and acquired capability for suicide (**Choi & Bae, 2020**). Along with, most research focus on; (a) biological causes of suicidal behaviors and the relation to mental disorders with little attention to other factors, (b) risk factors more than protective factors and (c) quantitative assessment of suicidal behaviors

with little of qualitative analysis as well as dearth of mixed-methods studies. Against this, the aim of the current mixed-methods approach was to investigate psychosocial risk and protective factors associated with suicidal behaviors among youths.

2. Methodology

2.1. *Approach:*

A concurrent mixed-methods approach was adopted for this study to develop for more clear and comprehensive substantive understanding of youths' suicidal behaviors (Creswell, 2014). The usefulness of mixed-methods studies approach in suicidal research in recent times has been highlighted by Kral., et al (2012).

2.2. *Participants & procedure:*

A total of 364 youths from Zagazig University campus were enrolled using a stratified multi-stage cluster sampling technique, the faculties were stratified by type (literary and scientific) and also by grade (all grades and post graduate youths were included). For selection of the faculties (stage 1), two faculties from each stratum were randomly selected and for selection of youths (stage 2), youths were selected from each of the strata randomly. To fulfill the required sample size (364), each of the selected strata would provide an average of 91 youths. Number of youths from each faculty have been taken with fixed allocation other than proportionate for better statistical reliability; the mean age was 20.8 (SD=1.9).

the current mixed-methods study approach was designed as a “concurrent QUAL + QUANT” study, that is, quantitative and qualitative data were collected at the same time. An introductory letter including clearance for ethics was presented to the deans of the selected faculties. After permission was granted, youths within these faculties were approached. youths who gave written consent were scheduled for focus group discussions and after completing the discussions they were given the quantitative questionnaire. Discussions were conducted in locations of the participants' convenience such as lecture halls and cafeterias. All focus group discussions and quantitative data collection were conducted at the end of lectures for the day. The focus group discussion and the questionnaire took approximately 2 hours (60-90 minutes for discussion, 30-45 minutes for the questionnaire). Each focus group contained 8-12 participants, as far as possible from the same friendship groupings to encourage openness and honesty. The field work of the current study extended throughout the academic year 2020\2021. All focus group discussions were held in the native language and was translated to English and back-translated by the first author. All participants who were approached agreed to join the study.

2.3. *Tools of data collection:*

Qualitative part

Focus group discussion: Research team members developed the focus group discussions. It included open-ended questions as " a close friend told you that he is really thinking of ending his life. What would you do for him/her?", " what influence or lead the youths to suicidal behaviors?", "what prevent youths from engaging in suicidal behaviors?". It lasted between 60-90 minutes. They were audio-recorded and transcribed verbatim.

Quantitative part

Four tools were used to carry out the quantitative part of the present study, they were:

Tool I: Youth profile questionnaire developed by the researchers in the light of the current related literature and composed of two parts: Socio- demographic data and youth characteristics.

Part 1: Socio- Demographic Data: It involved two parts;

- **youth's data:** such as; age, sex, residence, marital status, occupation.
- **Family's data:** such as; parents' educational level, occupation, parents' marital status, socio-economic level of family.

Part 2: youth characteristics:

It involved; regular physical activity, hobbies, interests, and regular number of friends.

Tool II: The suicidal behaviors questionnaire- revised (SBQ-R):

This questionnaire was developed by **Osman et al (2001)** to assess suicidal behaviors including ideations and attempts. It consists of 4 subscales, each tapping a different dimension of suicidal behaviors. The first subscale taps into lifetime suicide ideations and/or attempts rated. The second subscale assesses the frequency of suicidal ideation over the past 12-month. The third subscale taps into the threat of suicide attempt rated on. The fourth subscale evaluates self-reported likelihood of suicidal behavior in the future.

Scoring system:

The SBQ-R consists of 4 subscales. The first subscale is rated on a 4 point Likart scale ranged from (1) never to (4) I've tried to kill myself. The second subscale is rated on 5 point Likart scale ranged from (1) never to (5) many times. The third subscale is rated on 3 point Likart scale ranged from (1) no to (3) yes, more than a time. The fourth subscale is rated on 6 point Likart scale ranged from (0) never to (6) most likely. All the scores circled/checked by the respondents were summed-up. The total score should range from 3-18. High score (≥ 7) means increased suicidal behaviors and low score (< 7) means decreased or no suicidal behaviors, It's Cronbach's α was 0.76.

Tool III: Risk factors associated with suicidal behaviors questionnaire:

This questionnaire consisted of three parts they are:

Part 1: Life Stressors Questionnaire

it was modified from an Arabic version by AL Abdullah (2014) in her study on strategies for dealing with psychological stressors and their relationship to parenting styles among adolescents to assess source of stressors in the life of youths either family, academic, financial, emotional and/or personal.

Scoring system:

items were scored 1, 2, 3 and 4 for the responses rarely, sometimes, often and always respectively. The scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. The total score was converted into a percent score. A total percent score of 60% or higher was considered as high while a score < 60% was considered as low, It's Cronbach's α was 0.86.

Part 2: Interpersonal Needs Questionnaire (INQ)

it was developed by Van Orden et al (2008) to assess respondents' current beliefs about feeling connected to others (Thwarted Belongingness-TB) and feeling like a burden on the people in their lives (Perceived Burdensomeness-PB). It includes 15 items 9 items for TB and 6 items for PB.

Scoring system:

Individuals provide a self-report response to each item on a 7-point Likart scale ranging from 1 (Not at all true for me) to 7 (Very true for me). Items 7, 8, 10, 13, 14, and 15 are reverse coded. The appropriate items were reverse coded, and items were summed to calculate the TB (scores range from 9 to 63) and PB (scores range from 6 to 42) subscale scores with higher scores indicating greater TB and PB (cut off point 60%). A total percent score of 60% or higher was considered as high while a score < 60% was considered as low, It's Cronbach's α was 0.74.

Part 3: The NEO-Five Factor Inventory (NEO-FFI)

It was developed by McCrae & Costa (2004) used to measure five domains of personality. It includes 60 items distributed on five factors (Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness), every part consists of 12 items. The researcher used the neuroticism factor in the current study.

Scoring system:

It's rated on a 5-point Likart scale. Items were scored 1, 2, 3, 4, and 5 for the responses never, rarely, sometimes, often and always, respectively. The scores of the items will summed –up and the total divided by the number of the items, giving a mean score for the part. The total score was converted into a percent score. The neuroticism is considered to be high if the percent is 60% or more, and low if less than 60%. It's Cronbach's α was 0.79.

Tool IV: protective factors associated with suicidal behaviors questionnaire:

This questionnaire consisted of two parts they are:

Part 1: Resilience scale

it was developed by Connor & Davidson (2003) to assess resilience. It includes 25 items each item is rated based on how the subject has felt over the past month.

Scoring system:

the 25 items a 5-point range of responses from (0) not at all true to (4) true nearly all the time. The total score ranges from 0–100, Cut off point 50%. The resilience was considered to be good if the percent is 75% or more, average if from 50-75% and poor if less than 50%, It's Cronbach's α was 0.92.

Part 2: Multi-dimensional Scale of Perceived Social Support (MSPSS)

it was developed by Zimet et al (1988) to measure perceived social support received from family, friends, and significant others. MSPSS consists of 12-items divided into three subscales with each subscale consisting of four items: family (3, 4, 8,11), friends (6, 7, 9, 12) and significant others (1, 2, 5, 10).

Scoring system:

It was rated on a 7-point Likert-type scale, ranging from (1) very strongly disagree to (7) very strongly agree. The Item ratings fall between 12 and 84, Cut off point 50%. The total score was converted into a percent score. The perceived social support is considered to be good if the percent is 75% or more, average if from 50-75% and poor if less than 50%, It's Cronbach's α was 0.91.

2.4. Pilot study:

The pilot study was conducted on 36 participants (constituting approximately 10% of the entire study sample) in faculty of Nursing – Zagazig University to discover the best way to initiate and facilitate the focus group discussion as well as to estimate the time needed for filling the questionnaire. The participants in the pilot study were included in the study

since no modifications were done and due to the conditions imposed by COVID-19 pandemic, which changed and reduced the attendance system in the university.

2.5. Trustworthiness

The researchers used four criteria of **Lincoln and Guba (1985)** to establish the trustworthiness of the study. The credibility was established through observation of non-verbal communication and member checking, while the transferability was achieved through the dense description. Field notes were made throughout the study to achieve dependability, and the advisory team provided their expertise as auditors. Confirmability of the analysis was established by using an analysis audit trail and the findings were supported by a literature control.

2.6. Validity

It was ascertained by a panel of three experts in the field of psychiatry and mental health nursing, and community health nursing who reviewed the content of the tools for clarity, relevance, comprehensiveness and understandability.

2.7. Ethical consideration:

Official permissions were obtained from relevant authorities to proceed with the study. Before embarking on the study, ethical approval was obtained from the research ethics panel at Zagazig University. All potential participants were informed verbally and in written form about the study methods and the duration of the study. At interview, every participant was informed regarding the aim of the study and that their participation is voluntary and that they have the right to withdraw from the study at any time while not giving any reasons as well participants' approval for recording focus group were obtained. Additionally, confidentiality and anonymity of the participants were assured through coding of all information.

2.8. Data analysis:

Qualitative data commenced by transcribing the focus group discussions then was analyzed using thematic analysis. The first author was in charge of the analysis. First and foremost, as authors, reading the transcripts independently. This was done while addition to listening to the audiotapes for omissions and misprints, as well as going over the field notes for each conversation. Initial ideas and thoughts were documented at this stage of analysis. All authors individually formed these first notions into codes and discussed them. The transcripts were searched for agreed-upon codes that were related to the goal of the current study, and similar ones were structured into themes to better explain open areas of the data. The next step was to look at the links between the many themes that had

emerged. All authors discussed themes that were well established and defined. Finally, to aid study, exemplary quotes that represented features of the concepts were chosen. (Braun and Clarke, 2006).

Quantitative Data entry and analysis were done using IBM SPSS Statistics for windows Version 27. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations and medians for quantitative variables. Cronbach alpha coefficient was calculated to assess the reliability of the scales through their internal consistency. In order to identify the independent predictors of various parameters' scores, multiple linear regression analysis was used and analysis of variance for the full regression models done. Statistical significance was considered at P-value <0.05.

3. Results

3.1 Quantitative results

As to the demographic data and characteristics of the participated youths, 69.2% of participated youths were females and the mean age was (20.8±1.9), 48% of them were at first and second grade of college, 67% of them were single, and 81% were not working. Considering the physical activity and hobbies, (58.8%) and (55.5%) reported no regular physical activity and no specific hobbies, respectively. However, (60.4%) reported having different interests. For number of friends, (47.5%) had four or more. As for father/mother education and father/mother occupation, (51.4%) of fathers compared to (37.9%) of mothers had higher education and (39.6%) of fathers compared to (25.8%) of mothers were employees. For marital status of the parents and with whom the youth lives, (89.0%) of the parents were married and (82.1%) of the youths were living with both parents.

Table 1 illustrates correlation between suicidal behaviors, life stressors, interpersonal needs, neuroticism, resilience, and perceived social support among the participated youths. From this table, it is evident that there were statistically significant positive correlations between suicidal behaviors and life stressors ($r = 0.402$), interpersonal needs ($r = 0.486$), as well, neuroticism ($r = 0.421$). While, statistically significant negative correlations appeared between suicidal behaviors and resilience ($r = -0.292$) as well as perceived social support ($r = -0.280$).

Concerning best fitting multiple linear regression model for predicting factors which affect suicidal behaviors score, table 2 reveals that the most positive predictors of suicidal behaviors among youths are interpersonal needs, neuroticism and mother occupation. While, resilience is negatively predicted suicidal behaviors ($r\text{-square} = 0.306$).

Table 1: Correlation between youths' suicidal behaviors, life stressors, interpersonal needs, neuroticism, resilience and perceived social support (n=364)

Variables	Suicidal behaviors		Life Stressors		Interpersonal Needs		Neuroticism		Resilience	
	r	P	r	P	r	P	r	P	r	P
Life Stressors	0.402	0.001**								
Interpersonal Needs	.486	0.001**	.519	0.001**						
Neuroticism	.421	0.001**	.580	0.001**	.479	0.001**				
Resilience	-.292	0.001**	- .212	0.001**	- .333	0.001**	- .225	0.001**		
Perceived Social Support	-.280	0.001**	- .319	0.001**	- .473	0.001**	- .209	0.001**	.291	0.001**

Non-significant if $p > 0.05$, *: statistically significant ($p < 0.05$), **: highly significant ($p < 0.001$), r: correlation coefficient

Table 2: Multiple Linear Regression for predicting factors which affect suicidal behaviors score

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.491	1.394		.353	.725	-2.249	3.232
Interpersonal Needs	.085	.013	.332	6.394	.001**	.059	.111
Neuroticism	.092	.020	.236	4.689	.001**	.053	.131
Resilience	-.028	.010	-.131	-2.801	.001**	-.048	-.008

*: statistically significant ($p < 0.05$) **: highly significant ($p < 0.001$)

R-square=0.306,

ANOVA: $F=39.557$, $P=0.001$

Variables entered and excluded: age in years, sex, residence, marital status, occupation, father education, mother education, father occupation, socio-economic level of family, faculty, grade, regular physical activity, hobby, interests, number of friends, living with, life stressors and perceived social support.

3.2 Qualitative results

Focus groups revealed a number of themes relevant to the study's research questions. The first category of themes was related to participants' perceptions of risk factors for suicide. Themes within this category included: (a) behaviors (e.g., bullying, risk taking, and addiction); (b) emotional distress (e.g., isolation, hopelessness, and grief); (c) interpersonal influences and (d) constant pressures and inescapable difficulties. The second category of themes was related to protective factors for suicide, which included: (a) resilience and (b)

perceived social support. Representative quotes from participants are provided in text (figure 1).

Risk factors

Risk factors leading to suicidal behaviors among youth is the first category emerged from data analysis. It describes the factors that may directly or indirectly push the youths to commit suicidal behaviors. Upon asking the participants about their opinions of suicidal behaviors phenomenon among youths, they revealed their personal experiences emphasizing that such behaviors are the result of correlated factors and not a single one as well as they indicated that these factors may differ according to the stages that youths go through. This category is divided to 4 themes: I) behaviors, II) emotional distress, III) interpersonal influences and IV) constant pressures and inescapable difficulties.

Behaviors. Within this theme, the participated youths discussed a number of behaviors that associated with suicidal behaviors; these behaviors may be practiced by youth himself as addiction;

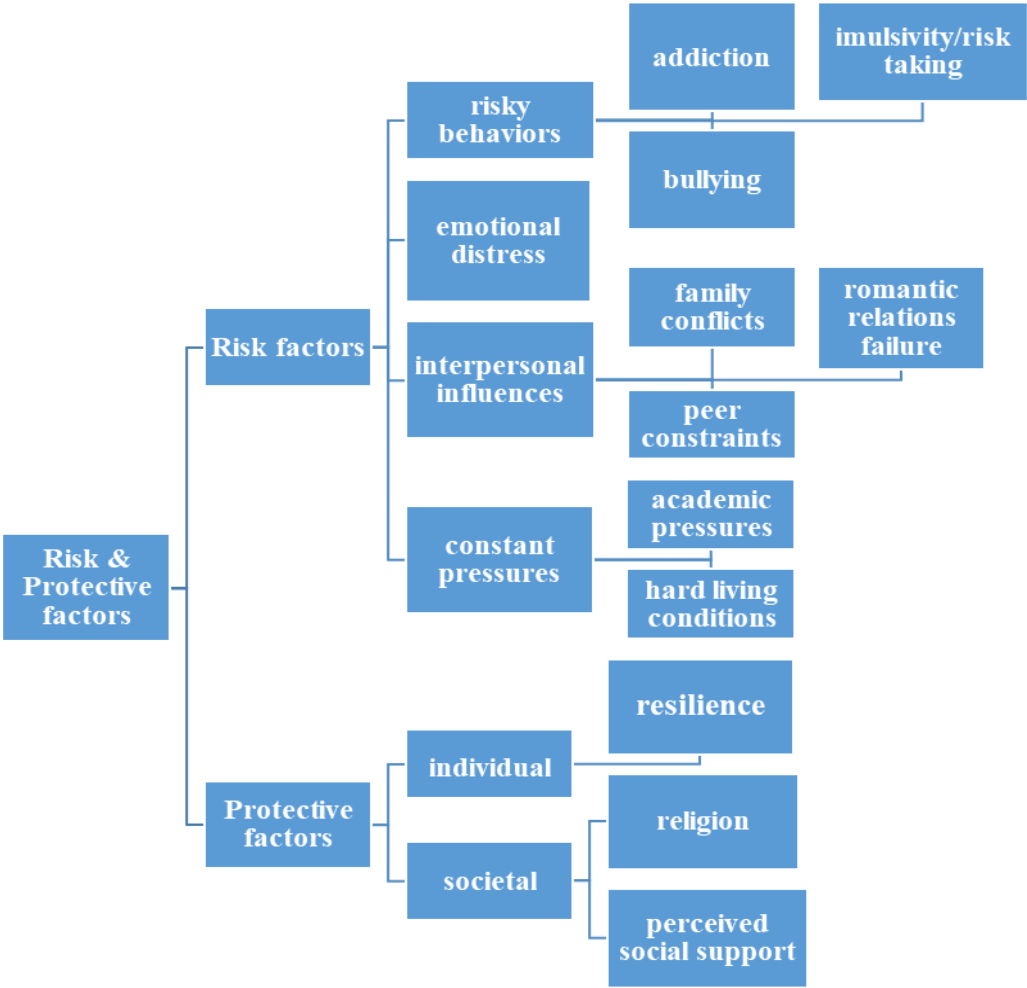


Figure 1. This figure illustrates the themes and sub-themes that emerged as a result of the qualitative analysis.

Quote: "a neighbor failed to get his addicted drug so he hanged himself"

being impulsive and vulnerable to risk taking;

Quote: "it was a rushed behavior that was not intended, he is not thinking logically. The first thought come to mind is suicide "

being a victim of such behaviors as being bullied;

Quotes: "bullying is one of the reasons that has become widespread and some consider it is a kind of joke"

Emotional distress. The participated youths described a group of emotions that are self-destructive, in their own words, robbing the desire and meaning in life as isolation or being alone; hopelessness/helplessness; grief/mourning and perfectionism;

Quotes: "to be abandoned from your family with no close friends so earth is not a place for living"

"to end life, it's a strong evidence of despair and hopelessness

"feelings of helplessness, not up to the responsibility placed on him, can't achieve his dreams or failure"

"my friend and his fiancé exposed to an accident and she died. After that accident, he tried many methods to put an end to his life"

"perfectionism is behind my 3 suicidal attempts, I have to be perfect or I will not be a good girl"

Interpersonal influences. This theme reflects the importance of relationships in an individual's life and how the absence or lack of integrity of these relationships leads to the decision to die either directly or indirectly through being into a spiral of psychological conflicts. Of these relationships, family relationship, peer relations and romantic relations;

Quotes: "one of my relative jumped from 4th floor, her parents imprisoned her. some parents put a lot of pressure on their children till explosion. Other times they beat or torture them, discriminate and compare between brothers\sisters"

"home is supposed to be safe where we get support and strength to face problems outside.

When home is full of problems, this means that the source of support and strength is absent for sure he/she will attempt suicide"

"how many! My neighbor and his fiancé had a quarrel, she told him that they were not supposed to be together. He closed the phone and hanged himself"

"feeling betrayed by friends"

constant pressures and inescapable difficulties. Up to this theme, academic challenges and hard living conditions were the most pressures faced by youths. Academic failure is connected with parents' anger and despair and in turn connected to youths' self-esteem and self-worth;

Quotes: "a bogeyman named High School certificate was the reason for killing two of our town. One hanged himself and the other swallowed Aluminum Phosphide tablets "

"success in future is connected with your grades. Without high grades, you will suffer all your life"

As for hard living conditions, poverty and its consequences were much stated by youths as a main source of stressors and was connected to many suicide cases they witnessed by themselves;

Quotes: "debts are the cause of suicide, it pushed my neighbor to throw himself into deep water"

"when male youths fail to find a job after graduation. In addition to the low income of their families, they will commit suicide"

Protective factors

The second category emerged from data analysis is factors protect against suicidal behaviors. It expressed why youths didn't resort to suicidal behaviors despite the issues they have gone through. Participants illustrated many factors that classified into: a. individual factors (resilience) and b. societal factors (social support either individual from family, friends and significant others).

Resilience. for the youths, resilience is a magical characteristic. up to them it represents the ability to adopt whatever the problems are, the ability to solve problems, realizing facts and to have self-esteem whatever others told. All of these constructs are enough to present them from resorting to suicidal behaviors;

Quotes: "it's all about resilience of the person. There are persons who reach the end with the lowest pressure, while others whatever the pressures have the spirit of initiative and risk"
"the secret is: love yourself, love and be passionate in life, put some goals to achieve and of course have faith in god help and support"

"knowing the fact that life has two parts happy part and sad one"

Perceived social support. Within this theme, participated youths confirmed the important role of support whatever the source from family, friends and significant others.

Quotes: " I would never repeat my attempts if there were any one listen to me, or a hug from my mother."

"without my family support, literally my father support, I would never able to live. The only motivation in my life is my father"

4. Discussion

To the best of our knowledge, this is the preliminary mixed-methods study to investigate youths' suicidal behaviors in the country of Egypt. The main focus of the current mixed-methods approach was the psycho-social risk and protective factors contributed to suicidal behaviors among that vulnerable category. The key findings of the current study revealed that psycho-social factors are key determinants of suicidal behaviors among the studied participants. **Concerning the risk factors**, as anticipated, the current findings provide support for positive association between life stressors and suicidal behaviors. possible explanations for this positive association are the confused nature of this age group with the presence of academic and societal pressures, as the vast majority of the participated youths are enrolled in university education and are expected to join the practical life to secure their lives. This result is consistent with the study of **Abdollahi et al., (2018)** in Malaysia and **Gupta and Basera (2021)** in India, as well as the systematic review and meta-analysis by **Howarth et al., (2020)** who reported that life stressors increase the risk of subsequently reported suicidal behaviors.

Academic pressures were the main source of stress in the participated youths' life. They stated that academic challenges whether from the study itself in terms of the methods of learning and the amount they are required to study, the parents' pressure for high academic

performance, or from the community that determines what a person is through his education are significant motivators for the suicidal behaviors as they makes them worried about failing in their study all the time. This goes in line with **Amare et al., (2018)** and **Akram et al (2020)** where they revealed that youths who were disappointed in their academic results were more likely to have suicidal behaviors than their peers.

Also the current findings revealed that hard living conditions including debts, poverty and unemployment were considered a predisposing factors for suicidal behaviors. The youths' point of view can be ought to the fact that Egypt is a developing country with a developing economy and high fertility rate that mean low and unequal wages and limited resources thus in turn mean high rate of poverty, high rates of loans with many possibilities of not being able to pay and increased unemployment rates. Suicidal behaviors in this cases represent an escaping tool. These findings align with **Sharma et al., (2015)** in Peru and **Ajibola and Agunbiade, (2021)** in Nigeria where they reported that economic hardships as a hard living condition tremendously compromised the youths' psychological wellbeing and exposed them to suicidal behaviors.

For *interpersonal needs*, the current study reported that when youths regard themselves as alone and uncared for in social connections (Thwarted Belongingness), and as a burden to others (Perceived Burdensomeness), they are more likely to consider suicidal behaviors. This result provide support for the theory of IPTS by **Joiner (2005)** and **Van Orden et al., (2010)** who stated that TB and PB are the most proximal and dynamic risk factors for suicidal behaviors. Also, this result matches the results of previous studies by **Suh et al., (2017)**, **Cho, Yuk, & Kim., (2018)** as well as **Choi and Bae (2020)**.

Families' disputes, discrimination, violence, uncaring, unsupported attitude toward their kids as well as inappropriate parenting method are coming in the first place of the reasons that cause belongingness issues, since families are the first thing to belong and relate and thus lead to suicidal behavior. This finding was similar to the study of **Ajibola and Agunbiade, (2021)** who confirmed that unresolved families' tensions and conflicts devastate the psychological wellbeing of the youths and increase the risk for suicidal behaviors.

Also, finding from this study depicts failure of romantic relations as a significant predictor for mental wellbeing and that the deprivation of it or even instability can lead to mental symptoms including suicidal behaviors. This finding matched the perspective of **Gómez-López, Viejo and Ortega-Ruiz, (2019)** where they viewed romantic relations as an integral part of persons' need of belonging and is associated with higher rates of self-esteem, safety, satisfaction with life, positive affect, positive self-concept and greater social integration. The same finding was found in the study of **Evans, Scourfield, & Moore., (2016)** which assured that intimate relationship breakups are a risk factor of suicidal behaviors among youths. Furthermore, the current study findings described a group of

emotional distresses as a risk factor for suicidal behaviors. Of these emotional distresses, hopelessness/helplessness, grief/mourning, perfectionism, indifference/worthlessness, self-esteem issues and mental illnesses. All of these distresses are contributed to the perception that self is so incompetent and is a burden on others.

As for *neuroticism*, the current study findings revealed its positive association with suicidal behaviors. Possible explanation for this association can be attributed to that a person's neurotic trait frequently reflects their negative emotions as sadness, worry, wrath, anxiousness, and vulnerability which are all common negative feelings contributed to emotional instability that lead to suicidal behaviors (Chen et al., 2020). This result is congruent with Huang et al., (2019) and Akpinar Aslan et al., (2020) where they reported that neuroticism has a positive predictive effects on suicidal behavior and that high neuroticism of youths tends to make them emotionally responsive, responding excessively to stressful events, showing irritability, and ultimately leading to suicidal behaviors.

The current study findings shaded the light on number of behaviors that are closely related to suicidal behaviors. These behaviors included impulsivity or risk taking, bullying and addiction. These findings were supported by Grimmond et al., (2019) where they categorized engaging in high risk behavior and impulsivity among the main behaviors lead to suicidal behaviors, Bibi, Blackwell and Margraf., (2021) which reported that being a victim of bullying is associated with a myriad of behavioral problems including suicidal behaviors, and Martin & Bohecker, (2021) who stated that drug and alcohol abuse increase the risk for suicidal behaviors 10 times more than the general population.

Concerning the protective factors for suicidal behaviors, the current study findings divided what keep youths alive into factors stemming from within the individual and external ones in the surrounding atmosphere. For *resilience*, an intrinsic factor, the current findings revealed a negative statistically significant association between resilience and suicidal behaviors. According to Yates, Tyrell, & Masten., (2015), resilience factor implies a number of positive constructs as healthy development, higher self-esteem, optimism, positive health outcome and ability to withstand life's stressors. All these factors are connected with satisfaction and desire of life; therefore, individuals' perception of resilience was inversely related to suicidal behaviors. This finding share similarities with Liu et al (2014), where they showed that lower resilience was associated with increased risk for suicidality in adults, especially for the young and midlife age cohorts. On the same sense, studies as Horwitz et al., (2017) and Burke et al., (2016) revealed that low resilience as indicated by lack of hope and optimism and problem-solving skills, is reported to significantly affect youths' current or future suicidal risk.

For the participated youths, resilience was a magic factor against executing suicide; that whatever the stressors or the difficulties: when resilience activated, persons will come over it. The participated youths described the resilience as being the secret behind loving oneself

and passion to life. Together along, they mentioned that resilience is coupled with the spirit of initiative and conservatism, the realization that life has a good part as it has bad one, and that no matter what happens God is there to help and strengthen us.

Along with other studies as **Rashid et al., (2016)**, there was a negative statistically significant association between *perceived social support, an extrinsic protective factor*, and suicidal behaviors. Accordingly, youths have higher levels of social support are in lower risk for suicidal behaviors. This provides support for the IPTS which have postulated that social support increases feelings of belongingness, which reduces suicide risk (**Van Orden et al., 2010**). Moreover, this inverse relation may have attributed to the association of perceived social support with higher level of self-esteem which lead to an increase in resilience; which is another protective factor against suicidal behaviors (**Matel-Anderson et al., 2019**).

This finding also matched with the Stress-Buffering Hypothesis, in which social support protects from harmful impacts of stress (e.g., worry) caused by bad life experiences. More social support or resources that a person has, or believes he or she has, may assist the individual feel more in control of the stressful circumstance, or may lead to more emotional disclosure and processing of the bad experience, which improves connected outcomes (e.g., lower rates of depression or anxiety, better access to health care, etc.). Perceived support, in particular, has been believed to aid people in reappraising difficult circumstances, whereas received support has been theorized to help people cope with stress.

The participated youths highlighted that the most important source of social support to protect against suicidal behaviors is family followed by support from friends and significant others and at last come the support from environment as university and religious institutions. This finding matches that of **Shtayermman et al., (2012)** and **Matel-Anderson et al., (2019)**, where they revealed that the most important source of social support for youths are family and at second place come the friends and that lack of parental support increase the youths' risks for suicidal behaviors. Far than this, of the different types of social support (instrumental, emotional, companionship), the participated youths were only care about the emotional support. This result is in an alignment with **Lincoln et al., (2012)** in his report of suicidal ideation in adult African Americans and Caribbean blacks and **Lee et al., (2014)** in his qualitative study of triggers of suicide ideation and protective factors, both reported that emotional support was more important than other kinds of social support.

Religion was another factor exclusively deduced from qualitative results and the most controversial point which witnessed lots of verbal altercation. Among agreed and opposed, an indisputable point is that religion is a central focus in the lives of many. Opinions were differing on the relationship of religion to suicidal behavior and whether it prevents or has no relation. Yet, the prevailing opinion was that religion protects from suicidal behaviors

from the beginning as well as it prevents committing suicide even if the person suffers from suicidal ideations.

This can be traced back to several well-known theories that explain the protective influence of religion on suicidality; The first is the social integration theory (**Durkheim & Simpson, 1951**), which states that “people in an integrated group such as a church, with more social cohesion, have a smaller chance to commit suicide”. A second theory is the moral objections to suicide (MOS) theory (such as the conviction “God forbids suicide”; (**Lizardi et al., 2008**). The third is the religious commitment theory (or theory of religious salience), which states that “the more committed a believer is to his or her belief and religion as an essential factor in that person’s life the more religion protects against the development of depression and suicide” (**Caribe et al., 2015**).

This finding is in an alignment with **Chen et al., (2020)** where they reported lower suicide rates at countries with a strong religious identity; e.g. Thailand and the Philippines where Buddhism and Catholicism, respectively, are widely practiced. As well, the current findings were consistent with the qualitative study of **Lee et al., (2014)**, where the participants reported that religious beliefs were another reason for the participants to not kill themselves as religious beliefs provided them positive energy in the form of strength and inner peace, which helped them to deal with problems in their daily life. In the same line, studies of **Mandhouj et al., (2016)** and **Stack and Laubepin, (2019)**; both showed that religiosity has most often been shown to be associated with reduced risk of suicidality.

On the contrary, there were studies of **Jia and Zhang, (2012)** and **Zhao et al., (2012)** where they declared that religion has no relation to suicidal behaviors; any person can engage in suicidal behavior despite his/her religious background. Along with, there were the studies of **Gearing and Alonzo, (2018)** and **Eskin et al., (2019)**, **Smigelsky et al., (2020)** in which they reported that intensity of religious commitment and beliefs has been shown to be conferred to suicidal behaviors. This discrepancy may be attributed to specifically “problems with self-forgiveness and a perceived lack of control over one's life were associated with increased odds of suicidal ideation, while perceiving that one was being punished by God or that one's life lacked meaning/purpose were associated with increased odds of having attempted suicide”. Finally, these findings are consistent with results from **Kopacz et al. (2016)**, who found that problems with forgiveness and negative religious coping (of which feeling punished by God is a primary example) were uniquely associated with suicidality.

Limitation of the Study

The current study was conducted at the academic year 2021/2022, so the main limitation was the restrictions imposed by COVID-19 pandemic, however the author committed to the attendance system organized by Zagazig university and scheduled the participants into

focus group discussion according to their schedule with following the protection measures. The other limitation might be due to the nature of focus group discussion where every participant should share their opinion, some participants might not share their opinions freely for fear of criticism from the group.

5. Conclusion

Overall, this mixed-methods approach revealed that suicidal behaviors are a complex and multi-faceted phenomenon that did have significant and long-lasting consequences on the youths and the community. Additionally, this approach underscored the role of psychosocial determinants in youths' suicidal behaviors and the need to tailoring of psychosocial determinants in youths' suicide prevention efforts.

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The author(s) declare(s) that there is no conflict of interest.

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