Médecins du Monde
Switzerland

State of Palestine
Ministry of Health

Mixed Study on

ATTEMPTED SUICIDE PATIENTS RISK FACTORS

AND

SUICIDE PREVENTION STRATEGIES IN PALESTINE

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For Médecins du Monde Switzerland

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The Study was conducted with cooperation between the Ministry of Health in the State of Palestine and Médecins du Monde Switzerland

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FOREWORD

According to a World Health Organization (WHO) report in August 2017, nearly 800 000 people die each year from suicide worldwide. More people are killed by themselves than by others. Suicide is the second leading cause of death in the 15-29 age group, and the third amongst 10-14-year-olds. Most suicide victims are people who have experienced mental health disorders, emotional or psychosocial crises or chronic pain. According to a 2015 WHO report, at least 79% of suicide victims are from low- and middle-income countries. In Action Plan 2013–2020, WHO Member States committed themselves to working towards the global target of reducing the suicide rate in countries by 10% by 2020. Suicide mortality rate is also one of the indicators of Target 3.4 of the Sustainable Development Goals (SDG): '*By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promoting mental health and well-being*'.

There is a problem studying suicide in Palestine, insofar as documentation either does not exist or is very poor; the "sinfulness" and stigma surrounding suicide keep suicidal behavior in the darkness. Statistics issued by the Palestinian Police Research and Planning Department show that the number of suicides in Palestine last year was 35 cases, 23 in the West Bank and 12 in Gaza. Suicide in the West Bank in 2018 increased by 14% compared to the 2017, during which the West Bank witnessed a total of 25 suicides; in 2017, 22 cases were registered. Of the 25, 15 were males and 10 females, 17 were single and 8 married. The highest percentage of suicides (32%) was in the 25-28 years old category. Regarding educational level, the category presenting the highest proportion of suicides was among high school graduates (42%). The statistics demonstrated that in the same year 2018, in the West Bank, 218 people attempted suicide, including 157 females and 61 males. Although this observed distribution is similar to other countries, we recognize that these figures represent only the tip of the iceberg. Psychiatrists are well aware that not all suicides or attempted suicides are declared or recorded by the police. Cases of other sudden and violent deaths such as car accidents, falling down, electric shock and drug overdoses should also be recorded and studied to have a better monitoring of suicidal behavior in Palestine.

The Mental Health Unit at the Palestinian Ministry of Health leads and coordinates efforts on suicide prevention; the National Committee of Suicide Prevention was established in 2018. It is composed of representatives from the Ministry of Health (MoH), the Ministry of Education and Higher Education (MoEHE), the Ministry of Social Development, the Ministry of Religious Affairs Al-*Awqaf*, the Public Prosecution Office, the Family Protection Unit of the Police, United Nations Relief and Works Agency (UNRWA), the WHO, and international and national NGOs, including MDM.

A number of suicide prevention efforts and actions have taken place in the past few years to upgrade the quality of care, referral, and active follow up of patients with suicidal risk. Most notably, a directive has been issued by the Minister of Health to facilitate the referrals of cases of attempted suicides from general hospitals to community mental health centers (CMHC) for

follow up and treatment, exempt of fees. Initiatives included training 200 hospital professionals (doctors, nurses and social workers) on self-harm/suicide risk assessment, ad a registry to improve the documentation of suicidal attempts arriving to hospitals and CMHC has been developed. Furthermore, 600 health staff working in governmental Primary Health Center (PHC) have received training on mhGAP to improve their capacity to detect, treat, and refer persons with common mental health problems, including self-harm/suicide. Preliminary efforts have been made to work with media on responsible reporting, and religious affair to medically inform the religious discourse on suicide.

While these efforts are starting to yield results, a comprehensive multispectral suicide prevention strategy, for the population as a whole, and vulnerable persons in particular, is underway.

The mixed study on risk factors of attempted suicide patients and prevention strategies in Palestine conducted in 2019 by MDM is critically needed to inform our policy planning; it is an important contribution to our national suicide prevention strategy and fits into our first strategic objective: Improve surveillance and monitoring of suicide and self-harm. The results of the study will be taken into account as we develop our emergency room and hospital intervention in suicide. We value this partnership with MDM and hope that our collaboration will help us realize all our suicide prevention strategic objectives.

Dr. Mai Alkaila
Minister of Health of Palestine

Médecins du Monde Switzerland

Médecins du Monde - Switzerland (hereafter called MdM-CH) is a Non-Governmental Organization based in Switzerland, working in ten countries all over the world. It is a member of the International MdM Network. Present in the Occupied Palestinian Territories since 1994, MdM-CH built on its expertise in the field of specialized mental health and psychosocial support for children and adolescents.

Together with the Palestinian Ministry of Health, MdM-CH established the first public community mental health center (C.M.H.C) dedicated to Children and Adolescents in Halhul-Hebron Governorate. The Center employs a child psychiatrist, three psychologists, a speech therapist and a nurse, who provide psychotherapy and counseling services. In addition, the MdM-CH organized and facilitated specialized trainings on child and adolescent psychopathology, psychotherapy and psychopharmacology to other C.M.H.Cs teams throughout the West Bank. Furthermore, its Nablus adult C.M.H.C is equipped with two rooms to treat young patients.

Concerned with the situation of ex-detainees, MdM-CH designed specialized mental health and psychosocial support activities in the Southern West Bank hotspots (Al Aroub refugee camp and Beit Ummar) and the suburb of Jerusalem (Al Essawiyeh, Djebel Mukaber and Shaoufat Refugee Camp).

Since 2018, MdM-CH, together with the Palestinian National Suicide Prevention Response Committee (P.N.S.P.R.C), devoted their efforts to strengthening the suicide prevention and management in the country. The following report presents the results of a research conducted by Salam Al Khatib, Ph.D to assess risk factors of attempted suicide patients in Palestine and explore prevention strategies. The findings of the research will inform a three-year project, which aims to strengthen suicide/attempted-suicide detection and management in West Bank hospitals.

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List of Abbreviations

A.D.L Activities of daily living. Refers to people's daily self-care activities

ANOVA Analysis of Variance

I.H.M.E Institute for Health Metrics and Evaluation

I.S.B.Q Intervention Strategies towards Suicidal Behaviors Questionnaire

C.I.D Criminal Information Department (Jordan)

C.M.H.C Community Mental Health Center

D.S.M-V Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

G.S.H.S Global School-based student Health Survey

M.D.D Major Depressive Disorder

M.d.M Médecins du Monde

M.o.H Ministry of Health

M.H.U Mental Health Unit

N.G.O Non Governmental Organization

OR Odd Ratio

P.E.M Pediatric Emergency Medicine

P.N.S.P.R.C Palestinian National Suicide Prevention Response Committee

P.T.S.D Post Traumatic Stress Disorder

S.P.S.S Statistical Package for Social Sciences

U.A.E United Arab Emirates

U.N.R.W.A United Nation Relief and Works Agency for Palestine Refugees

U.S.A United State of America

W.H.O World Health Organization

W.M.H (Survey) World Mental Health Survey

Executive Summary

Background

Worldwide, suicide accounts for 1.4% of all fatalities and is the 18th leading cause of death (W.H.O, 2018). Globally, suicide is the second leading cause of death among youth in the 15-29 age group (W.H.O, 2018). The Arab police and government records report annual completed suicide rates of 1.1/100,000 to 6.2/100,000 (Karam, Hajjar and Salamoun, 2008). Recent statistics estimate that 79% of suicides occur in low-to-middle- income countries (W.H.O, 2018). The relationship between depression and attempted suicide is well-known (Vidal, Gontijo & Lima, 2013). Studies emphasize that understanding suicide risk factors and methods is essential for developing effective preventive strategies. Therefore, this study aims to examine the risk factors of attempted suicide and to develop an understanding of current provision of care to attempted suicide patients in governmental hospitals in order to identify areas for improvement. These findings will help produce sufficient documentation and a registry of attempted suicide cases. In addition, the findings will help inform policy makers to develop prevention strategies to reduce the occurrence of suicidal attempts in Palestine. Integration of suicide prevention strategies will improve outcomes for patients with a suicide risk.

Aims and Research Questions

This study aims to assess the risk factors of suicide and developing an understanding of current care provided to attempted suicide patients in four hospitals in the Southern West-Bank, in order to identify areas for improvement.

Research Specific Objectives

1. To investigate the self-reported prevalence rate of suicide attempts in four selected governmental hospitals in the Southern West Bank-Palestine (*Yatta Governmental Hospital, Beit-Jala Hospital, Bethlehem Psychiatric Hospital and Jericho Hospital*).
2. To review and assess the quality of existing literature regarding suicide prevalence and risk factors, using the Hawker quality assessment tool (2002).
3. To determine the risk factors and motives for suicide.
4. To investigate the existing referral path for attempted suicide cases.
5. To determine the capacity of health professionals to assess and respond to suicide risk.
6. To assess the quality of existing documentation and data registry tools to target patients.

Methodology and Sample

A concurrent mixed approach was adopted to simultaneously collect quantitative and qualitative data. The quantitative descriptive cross-sectional design was collected through self-reported questionnaires and a retrospective review of medical record files using a checklist in order to analyze treatment measures. The qualitative data was collected by means of semi-structured individual interviews and focus group discussions. The study covered four governmental hospitals: Beit-Jala Governmental Hospital, Bethlehem Psychiatric Governmental Hospital, Yatta Governmental Hospital (Abu Al Hassan) and the Jericho Governmental Hospital. In the quantitative study, 83 attempted suicide patients accepted taking part in the research. The overall response rate was 83%. A retrospective review of 75 medical files of attempted suicide patients was conducted in the 4 hospitals covered by the study. Furthermore, 116 healthcare

providers participated in this study with a response rate of 77.3%. In the qualitative component, 10 semi-structured interviews were conducted with key informants, 7 with family members of attempted suicide patients, and 5 focus group discussions (33 participants). One focus group gathered representatives of the Palestinian National Suicide Prevention Response Committee (P.N.S.P.R.C). Moreover, 4 focus group discussions were organized with healthcare professionals (physicians, nurses, social workers, police and midwives) that have previous experience with attempted suicide patients.

Data Analysis

Data analysis took pace utilizing version 22 of the Statistical Package for Social Sciences (S.P.S.S). Statistical procedures included: descriptive statistics such as frequencies and percentages, independent sample t-test, and One-Way ANOVA. Thematic analysis was adopted to analyze the qualitative data. The analysis process tackled identifying and generating themes from the data collected during the interviews. The analysis also involved the identification and description of both implicit and explicit ideas within the data, including themes. Then, codes were developed to represent the identified themes that were later applied or linked to raw data as summary markers for later analysis.

Findings

Females represented the majority of the study sample of attempted suicide patients. Patients of both genders live in cities and are single. The male patients are illiterate while females hold an intermediate diploma. Both male and female respondents belong to the middle socio-economic class. Females are younger than males as the majority are in the 16-25 age group while the majority of males are in the 26-35 age group.

Quantitative data was collected using a self-reported questionnaire, which might explain the discrepancies between quantitative and qualitative results. For example, data from the qualitative study shows different results at it was reported that attempted suicide patients were young, poor and depressed. In this study, over half of the attempted suicide patients (48, representing 57.8%) reported that they were not diagnosed with any psychiatric/mental illness while 35 (38.5%) reported a psychiatric diagnosis. 16 males and 8 females (29%) have depression and 8 (9.6%) have other mental health issues. Results of the qualitative data shows that mental illnesses and drug addiction are risk factors for attempting suicide. Results derived from quantitative data reveal that the majority of the attempted suicide participants have had one previous suicide attempt. Interviews with family members indicate that most of the attempted suicide patients experienced previous attempts. On the other hand, healthcare providers and key informants reported that the risk of reattempt increases among patients with a higher number of lifetime suicide attempts. The prevalence rate of attempted suicide and completed suicide, as reported in the interviews with key informants and service providers, shows inconsistent results with a range from 75- 400 attempted cases annually and 14 completed suicide cases. Both key informants and healthcare providers mentioned that stigma and shame associated with suicidal behaviors compromises adequate and proper documentation of suicide cases in Palestine. In the current study, key informants and healthcare providers explained that they respected the wishes of the families of survivors and abstained from reporting cases as families fear stigmatization and legal consequences. This is an indicator that the actual number of cases outnumbers officially reported data. In addition, cultural and contextual influence, such as family reputation and social stigma associated with disclosing suicide cases, prevents suicide attempters from seeking professional help. It also found that the most common mode of attempting suicide in both genders was hanging followed by ingestion of poison (detergent and insecticides).

The study classifies the common factors that lead to attempted suicide into five categories: economic, individual, familial, institutional and social factors. Suicide attempts are multifactorial and multi-causal indicating that each of these factors can contribute to the emergence of suicide risk independently or interdependently. At the *individual* level, mental illness, poverty and unemployment, feeling of worthlessness, the desire to punish family members, academic failure, drug addiction, loss of close family members and lack of coping mechanisms are the main causes. At the *familial* level, marital and excessive family conflict, romantic breakups, negligence and poor relationships with family members are the main causes. At *societal* level, isolation from close-knit society, insufficient professional and follow-up care, and discrimination against women are the key issues. Attempted suicide patients reported family conflict, marital and romantic problems, and lack of control as the main causes for their suicide attempts.

This study also surveyed attempted suicide patients' perceptions of the services provided in the emergency units at the time of the attempt. The perceptions were generally positive regarding the role of healthcare providers and overall interventions. However, some survivors reported receiving insufficient information regarding follow- up care, information about suicide risk, or treatment benefits and risks. They also complained about the judgmental and negative attitudes of healthcare providers, who seemed to blame them. Furthermore, data from the interviews with key informants and healthcare providers revealed lack of expertise and skills of healthcare providers at the emergency units regarding case evaluation, treatment and referral of attempted suicide patients. Interestingly, the study found that healthcare providers that worked with less than five patients monthly lack the experience to work with the attempted suicide patients. They further mentioned their needs for more specialized training on how to deal with attempted suicide cases. This may indicate that many of the attempted suicide cases are under-detected and under-treated.

Conclusion

This study provides a comprehensive analysis of the risk factors, mode of attempted suicide, association between socio-demographic factors, and complements previous data. In light of the study results, networking with different professionals and institutions is essential to improve the quality of care. All stakeholders at different levels stressed the need to slow down the high escalation of suicide attempts recently witnessed.

Chapter One: Introduction

1.1 Background

Worldwide, suicide accounts for 1.4% of all deaths and is the 18th leading cause of death (W.H.O, 2018). Globally, suicide is the second leading cause of death among youths ages 15-29 years (W.H.O, 2018). The Arab police and government records reported annual completed suicide rates of 1.1/100,000 to 6.2/100,000 (Karam, Hajjar and Salamoun, 2008). Recent statistics estimated that 79% of suicides occur in low- and middle-income countries (W.H.O, 2018). Previous studies among university students in Palestine suggest that suicide is a major public health concern as it has become more common in Palestine compared to other countries such as Austria, China, Italy, Japan, and the USA (Eskin et al., 2016; Eskin et al., 2019). Male students reported more attempts than female students (Eskin et al., 2016). The study (Eskin et al., 2019) attributes the high rate of suicide attempts among Palestinian students to the psychological impact of living under occupation/conflict situation, siege and restrictions on movement, low prospect of peace and prosperity, as well as economic and social hardships and problems (poverty, unemployment, marital and family conflict, etc). Generally speaking, the motives for attempting or committing suicide vary from one country to another. But, commonly these causes include: psychological distress or depression (Karam, Hajjar and Salamoun, 2008; Garlow et al., 2008; Eskin et al., 2018), drug and alcohol abuse and adjustment (Karam, Hajjar and Salamoun, 2008; Arria et al., 2009), being single, 15-25 years of age, holding primary to secondary level education, students, housewives, being unemployed, belonging to over-crowded large families, and having a lower socio-economic status (Karam, Hajjar and Salamoun, 2008). Attempted suicide is considered the foremost vital risk factor for suicide, and the risk of suicide increases with the number of attempts (Vidal, Gontijo & Lima, 2013).

The Head of Office for W.H.O in the Occupied Palestinian Territory reported that one in five people are affected by depression and anxiety disorders in Palestine (W.H.O, 2017). A study by Jabr et al. (2013) estimated that 400,000 Palestinians will experience one or more major depressive episodes at some point in their lifetime. Thabet, Thabet & Vostanis (2016) conducted a study that aimed at examining the relationship between war traumas, post-traumatic stress disorder (P.T.S.D), depression, and anxiety among 251 Palestinian children in the Gaza Strip and found that 127 children (50.6%) were depressed.

The relationship between depression and attempted suicide is well-known (Vidal, Gontijo & Lima, 2013). Studies emphasize that understanding the risk factors for suicide and suicide methods is vital to developing effective preventive strategies. Therefore, this study aims to examine the risk factors of suicide attempts and to develop an understanding of the current provision of care to attempted suicide patients in four governmental hospitals in order to identify areas for improvement. The findings will help to develop sufficient documentation and registries of attempted suicide cases. The study will further inform policy makers to develop prevention strategies to reduce the occurrence of suicidal attempts in Palestine. Integration of suicide prevention strategies will also improve outcomes for patients that are at a suicide risk.

1.2 Main Aim of the Study

The study aims to assess the risk factors for suicide and to develop an understanding of the current provision of care to attempted suicide patients in four government hospitals in order to identify areas for improvement.

1.3 Study Objectives

1. To investigate self-reported prevalence rate of suicide attempts in four selected governmental hospitals in Palestine (*Yatta Governmental Hospital, Beit-Jala Hospital, Bethlehem Psychiatric Hospital and the Jericho Hospital*).
2. To review and assess the quality of the existing literature regarding suicide prevalence and risk factors.
3. To identify suicide risk factors and motives.
4. To investigate the existing referral path of attempted suicide cases.
5. To evaluate the capacity of health professionals to assess and respond to attempted suicide risk.
6. To assess the quality of existing documentation and data registry tools to target patients.

1.4 Defining Terms

Suicide: Death caused by injuring oneself with the intent to kill self. It is synonymous with fatal suicidal behavior (National Center for Injury Prevention and Control, Division of Violence Prevention, 2018).

Attempted suicide: When a person tries to die by causing self-harm, but he/she does not die as a result of such actions. Intent to die was considered a characteristic of the suicide attempt itself. It is synonymous with non-fatal suicidal behavior (O'Connor et al., 2013).

Suicide ideation: Thoughts of killing oneself or wishing oneself dead (O'Connor et al., 2013).

Suicide behavior: Includes suicide, suicide attempts, other suicidal behavior, and preparatory acts (National Center for Injury Prevention and Control, Division of Violence Prevention, 2018).

Self-harm: The broader term that encompasses suicide attempts and self-injurious behavior without the conscious or certain intent to cause one's own death (O'Connor et al., 2013).

Suicidality: Refers to the occurrence of suicidal thoughts or suicidal behavior (Galaif et al., 2007).

1.5 Report Structure

This study report consists of five chapters.

Chapter One – Describes background, aim, objectives and defines the terms used in the report.

Chapter Two – Presents literature review of the internationally, regionally and nationally-published studies on prevalence, risk factors, methods used in the suicide attempts and health professionals' practices in treatment and assessment strategies.

Chapter Three – Presents the study's methodology, design, setting, population, instruments, data analysis, ethical considerations as well as validity and reliability issues.

Chapter Four – Presents the results of the quantitative and qualitative data analysis.

Chapter Five – Proposes detailed discussion and recommendations.

Chapter two: Literature Review

2.1 Aim of Literature Review

The aim of the literature review was to assess suicide prevalence, risk factors and the methods used in attempted suicide. This review also included studies about health professional practices in treatment and assessment strategies. A gap in knowledge was identified.

Published studies regarding suicide and attempted suicide in Palestine are very limited. Therefore, studies from Western, Arab and the Middle Eastern countries published between 2005 and 2019 were included. Studies were identified in PubMed and Google scholar and were selected according to predetermined criteria. The key terms used were suicide, completed suicide, attempted suicide, prevention, management and risk factors.

The literature is heterogeneous, with no consensus regarding the operational definitions of suicide attempts. For example, suicide, suicide attempt, non-fatal suicide and self-harm were used interchangeably in these studies. Overlap between completed suicide and attempted suicide was noticed. One of the limitations of the studies regarding suicide is that most of them employed a cross-sectional design and were conducted in Western countries. Limited qualitative studies were found and very few studies were conducted in Palestine.

2.2 Prevalence of Suicide and Suicide Attempt Internationally and Nationally

Globally, suicide accounts for 50% of all violent death in men and 70% in women (W.H.O, 2014). A recent W.H.O report (2016) estimates that 10.5% (per 100.000 people)

commit suicide annually, being 13.7% males and 7.7% females, and presents suicide as a global phenomenon that occurs throughout a life span; it claims the lives of 800,000 people annually and is the second leading cause of death among the 15–29 year-olds. The report further mentions that in 2016, 79% of suicides occurred in low and middle- income countries. Suicide accounts for 1.4% of the death toll worldwide, making it the 18th leading cause of death in 2016.

Although, suicide is among the leading causes of death worldwide. The data available on the prevalence, risk factors, and immediate precursors- suicidal ideation, plans and attempts is scarce, particularly, in low and middle-income countries worldwide (Nock et al, 2008). W.H.O (2011) attributes the scarcity of available data concerning suicide to the fact that many countries lack any globally recognized official rates on suicide and/or attempted suicide. Furthermore, studies that assess the prevalence of suicide and suicide attempts in the Arab world are very limited. As a result, the occurrence of suicide is underestimated and available data is unreliable (Karam, Hajjar and Salamoun, 2008). This is due to the fact that suicide is considered a sinful act that is prohibited by religion (Karam, Hajjar and Salamoun, 2008). Studies also indicate that cultural influences and legal consequences plays a major role in the under-reporting of suicide and attempted suicide cases in the Arab world as well as Asian countries (Karam, Hajjar and Salamoun, 2008 ; Henden, 2008). Both patients and their families prefer not to report suicide or attempted suicide in order to avoid stigmatization and legal sanctions (Karam, Hajjar and Salamoun, 2008). Research suggests that suicide rates may be under- reported, particularly, in countries where suicide is outlawed and prosecuted on the one hand, or where it represents a social and personal stigma, on the other.

Based on data collected from more than 600,000 people in the National Survey on Drug Use and Health - an annual nationwide mental-health survey conducted by a branch of the U.S. Department of Health and Human Services - rates of major depressive episode

in the last year increased by 52% from 2005–2017 (rising from 8.7% to 13.2%) among adolescents ages 12 to 17. The rates increased by 63% from 2009 –2017 (rising from 8.1% to 13.2%) among young adults ages 18 –25 (Twenge et al., 2019). Serious psychological distress in the month preceding the suicide attempt and suicide-related outcomes (suicidal ideation, plans, attempts, and deaths by suicide) in the last year also increased among young adults 18 –25 years from 2008 –2017 with a 71% increase in serious psychological distress (Twenge et al., 2019). Suicidal thoughts and behaviors are reported to be the most consistent predictors of future suicide attempts and death by suicide (Bostwick, Pabbati, Geske, & McKean, 2016; Ribeiro et al., 2016).

The Institute for Health Metrics and Evaluation (I.H.M.E) (2017) published a major study covering data over the last 25 years. The study covered countries extending from Morocco to Pakistan and was carried out by researchers from the University of Washington. It found that Muslim-majority countries had the highest rate of suicide, homicide and mental health problems including depression, anxiety, bipolar disorder and schizophrenia. Suicide and homicide increased in the Eastern Mediterranean Region more than any other region in the world. According to the same study, both depression and anxiety disorders were documented as the most common mental conditions (I.H.M.E, 2017). Increasing rates of death by suicide or at the hands of others was documented (I.H.M.E, 2017). In 2015 alone, the last year for which data was used, around 30,000 people committed suicide, while 35,000 were murdered. El-Sayed, Tracy, Scarborough & Sandro Galea (2011) conducted a study among the Arab-American (AA) population and found that the prevalence rates of suicide were 25.10 per 100,000 per year among men and 6.40 per 100,000 per year among women in Michigan between 1990 to 2007. AA men had a 51% lower suicide rate than AA women, which represented a 33% lower rate than non-ethnic white men and women, respectively. The suicide rate among AA men in Wayne County was 29% lower than in all other counties, while the rate among AA women in Wayne County was 20% lower than in all other counties.

Among non-ethnic whites, the suicide rate in WC was higher compared to all other counties among both men (12%) and women (16%),

All countries suffer from suicide disproportionally. In the United States and India, for instance, suicide is one of the leading causes of death (Ivey-Stephenson et al., 2017; Gade, 2018). Regionally, in the Arab World, suicide is associated with stigma, hence, few studies were conducted on the subject.

Oneib, Abda, Sabir & Ouanass (2016) study, which assessed the prevalence rates of suicidal ideation among Moroccan consultants in primary healthcare system in two Moroccan cities, found that the prevalence of suicidal ideation was 5.3%, and that 2.7% of the patients planned their suicide and 1.2% tried to commit suicide.

In the Middle East, two recent studies assessed the prevalence rate of suicide attempt and suicide ideation among schoolchildren in Morocco and Iran; it found that 6.5% of Moroccan student had attempted suicide and 15.7% had suicide ideation (Zarrouq et al., 2015). In Iran, there was a lower rate of suicidal thoughts as only 6.5% of the students ages 15-17 had thoughts of suicide (Ziaei et al., 2017). Another study showed that suicidal thoughts and ideation were reported to be risk factors for suicide among Slovene high school students (Groleger & Tomori, 2003).

The Criminal Information Department (C.I.D) (2017) in Jordan published criminal statistical reports, which documented a rise of 8.33% in suicide cases in Jordan, reaching 130 cases in 2017, compared to 120 in 2016. The C.I.D report (2017) also documented 527 suicide cases between 2012 and 2016, involving 157 females and 370 males (29.8 and 70.2 % respectively). The C.I.D further reports that in the first seven months of 2017, there were 83 suicides, including 27 females (32.5 %) and 56 males (67.5 %), showing a rise in number of females that took their own lives. Between the years 2011 to 2016, 2,182 suicide attempts were documented (1,357 among females and 825 among males).

Itani, Jacobsen & Kramer (2017) carried out a recent research study to identify the prevalence and correlates of suicidal thinking among Palestinian middle school students living in the Occupied Palestinian Territory and in U.N.R.W.A refugee camps in Jordan, Lebanon and Syria. Additionally, they analyzed data from Global School-based Student Health Survey (G.S.H.S)- participating countries from the Eastern Mediterranean region: Iraq, Jordan, Kuwait, Lebanon, Morocco, Tunisia and the United Arab Emirates. Their study findings suggest that the overall prevalence of suicidal ideation and/or planning was 25.6%. Their study also found that males were more likely to report suicidal thinking than females.

Another recent study was conducted by Eskin et al. (2019) to investigate the prevalence of suicidal thoughts, as well as attempts and motives among university students in 12 Muslim countries including Palestine. The study found that 22% of the participants reported suicidal ideation and 8.6% reported attempting suicide. The odds of suicidal thoughts were elevated in Azerbaijan, Indonesia and Saudi Arabia, while reduced odd ratios (OR) meaning that suicidal thoughts were less likely to occur) were recorded in Egypt, Jordan, Lebanon and Malaysia. While odds of suicide attempts were high in Azerbaijan, Palestine and Saudi Arabia reduced ORs were detected in Indonesia, Iran, Jordan, Lebanon, Malaysia and Tunisia. In Palestine, 23.6% of the university students reported suicide ideation and 17.6% had previous suicide attempts (Eskin et al., 2019).

Recently, Colonel Louay Arzieqat from the Palestinian police reported increasing rates of suicides in the West Bank in 2018: Hebron City recorded the highest rate of suicide (13 cases). He further reported that 25 suicide cases were documented in the West Bank in 2018. The higher rate of suicide was among males (60% N=15) versus females (40% N= 10). Unmarried individuals committed suicide more than married persons (68%; 32) respectively. Suicide was reported mostly among the 25-28 age group (MAAN news, 2019; SAWA organization, 2019).

The overall review of the prevalence rate shows an increase in the rate of completed suicides globally and particularly in the Eastern Mediterranean Region.

2.3 Attempting Suicide Increases the Risk of Completed Suicide

The review of epidemiological studies globally shows that individuals with previous suicide attempts are at risk to be completers (Bachmann, 2018; Turecki and Brent, 2016; Carroll, Metcalfe & Gunnell, 2014; Mendez-Bustos, 2013; Vidal, Gontijo &, Lima, 2013). According to the W.H.O report (2014), for each person who dies by suicide, more than 20 others attempt suicide. Some reports state that individuals with previous attempted suicide are at 5-7 times risk of recurrence (Mendez-Bustos, 2013) and about 40% of suicides are preceded by at least one previous, non-fatal attempt (Bachmann, 2018). Repeating suicide attempt depends on various factors. It was found that 40% of suicide attempters repeated the attempt within the first the3 months after being discharged from hospitals (Ruengorn et al., 2011). Ruengorn et al. (2011) conducted a retrospective cohort study by reviewing 235 medical charts of mood disorder patients at the Suanprung Psychiatric Hospital in Chiang Mai, Thailand, and concluded that when there were over two previous suicide attempts, prescribed antipsychotics or antidepressants, mental health professionals can predict suicide reattempts.

Reviewed studies also demonstrate that the majority of patients that committed suicide were in close contact with general practitioners in primary healthcare prior to their death, indicating the need to assess and comprehend suicidal ideation in order to prevent suicide risk at early stages (Oneib, Abda, Sabir & Ouanass 2016).

2.4 Suicide Risk Factors

The studies consulted, listed, many factors that can lead to suicidal behavior, which may be classified according to three categories: personal factors, family factors and social factors.

2.4.1 Personal factors

Different literature mentioned several factors that contribute to suicide attempt and these factors differed according to age, gender, education, mental illness, physical illness, feeling of loneliness and emotional state, location, substance use and smoking, daily activity and exposure to physical violence and bullying (Breet, Goldstone and Bantjes, 2018; Gade et al., 2018; Akca , Yuncu & AyDin, 2018; Choi et al., 2017; McKinnon et al., 2016; Zarrouq et al., 2015; Sabari & Shashikiran, 2016; Xu, et al.; 2014).

According to various research studies, the presence of mental disorders is the most important determinant of suicide ideation, suicidality and suicide attempt. Indeed, it was estimated that 90% of people that attempted suicide suffered from at least one psychiatric disorder (Akca , Yuncu & AyDin, 2018; Choi1 et al., 2017; Conwell & Thompson, 2008; Nock et al., 2008). Akca, Yuncu & AyDin (2018) in their cross-sectional study among 348 individuals ages 15-24 in Ankara, Turkey, found that the presence of mental illnesses was the most important determinant of suicide ideation, tendency and initiative. Anxiety, depression, negative self-image and hostility were main risks for suicide in young people. Xu, et al. (2015) conducted a cross-sectional survey using large scale design among the elderly in rural communities of Hunan, China. They found that the independent risk factors for suicidal ideation were annual personal income (≤2200 CNY), major depressive disorder (M.D.D), chronic diseases and disabled Activities of Daily Living (A.D.L) status. Activities of daily living is a term used in healthcare to refer to people's daily self-care activities and includes feeding oneself, bathing, dressing,

grooming, work, homemaking, cleaning oneself after defecating and leisure. Furthermore, M.D.D shows further correlation with A.D.L and annual personal income (Xu, et al.; 2015)

In South Korea, Choi, et al. (2017) found that educational level and depressive disorders were predictors for suicide attempts among men. They further found that age was negatively associated with suicide attempts among men and women as younger ages were more vulnerable to attempted suicide than older individuals. The college age group experienced higher suicide attempts compared to school age boys and middle school girls had the highest level of attempts. Daily activity limitation and drinking alcohol were predictors only for men in the under 50 age group. Cancer and smoking were predictors only in men over 50. Women under extreme stress had an increased level of suicide attempts and women that practiced strenuous exercise had higher levels of suicide attempts. Daily activity limitation was not a predictor in either age group. The level of regular exercise was a predictor only in the over 50 age group for women. Age, low education level, and depressive disorders were common risk factors for suicide attempts in both men and women. Being diagnosed with cancer was not a significant predictor in women, and national basic livelihood security, daily activity limitation, stress, smoking, and regular exercise were not significant predictors in men.

A recent systematic literature review of 108 English-written quantitative studies from 2006 to 2016 illuminated the research team on the association between substance use and suicidal ideation and behaviors. The review found a consistent positive association between substance abuse and suicidal ideation and behaviors across all substances (i.e. alcohol, tobacco, cannabis, illicit drugs, non-medical use of prescription drugs), all substance use dimensions (i.e. intoxication, use, and pathological use) and all suicidal ideation and behaviors dimensions (i.e. suicidal ideation, nonfatal suicidal behavior, and suicide) (Breet, Goldstone and Bantjes, 2018).

McKinnon et al. (2016) implemented a study to estimate the prevalence of suicidal ideation and suicidal ideation *with a plan* in 32 countries, of which 29 are low and middle-income countries. Triggers of suicidal ideation in most countries – as revealed in the survey included experiences of bullying and physical violence, loneliness, limited parental support and alcohol and tobacco abuse (McKinnon et al., 2016). Ziaei et al. (2017) found that Iranian adolescents ages 15-17 reported anxiety and loss of appetite or feeling hunger, in addition to smoking cigarettes, thinking of using alcohol or other drugs, as well as sexual abuse among the key factors that generated suicidal thoughts.

Sabari & Shashikiran (2016) carried out a study to assess risk factors of suicidal attempts in Mandya, Karnataka in India and found a strong correlation between male alcoholic attempters and ingestion of organophosphorus compounds ($p < 0.02$). They also found that a lower socio-economic status had a significant relationship to suicidal attempts.

Gade et al. (2018) conducted an observational cross-sectional study among 72 patients in a hospital in South India and found that the primary reason for suicide representing 43 respondents (59.7% of the sample) was family problems. Other factors precipitating suicide were described as 14 (19.4%) chronic medical illness, 11 (15.3%) financial problems, and 4 (5.6%) being under the influence of alcohol at the time of the attempt. For 14 respondents (i.e. 19.4% of the sample), suicidal thoughts appeared due to chronic diseases, while 11 respondents (15.3%) reported financial problems as the cause and 4 (5.6%) attributed their suicidal ideation to alcohol abuse.

In Morocco, Zarrouq et al. (2015) found that being a female, of middle-school age, living in urban locations, as well as consuming tobacco and/or psychoactive substances (alcohol and cannabis) were predictors for all suicidal behaviors among Moroccans (suicide ideation, suicide planning and suicide attempts).

Another review carried out by Karam, Hajjar and Salamoun (2008) in Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Palestine, Saudi Arabia, Sudan and

United Arab Emirates found that the key risk factors for suicide attempts were being single, ages 15-25, holding primary to secondary level education, students, housewives, unemployed, belonging to over-crowded large families, and having a lower socio-economic status. The psychiatric disorders were mostly depressive disorders, adjustment, personality, and drug dependence/abuse disorders. For completed suicide victims, the risk factors were frequently being males, 20-40 years old, single, manual workers and unemployed (Karam, Hajjar and Salamoun, 2008).

Recently, a colonel in the Palestinian police noted that mental illnesses ranked as the primary motive for suicide among Palestinians and represented 40% of cases, while emotional reasons contributed to 12% of cases (MAAN News, 2019; SAWA Organization, 2019).

Itani, Kraemer and Jacobsen (2017) assessed the risk factors of suicidal thinking among Palestinian middle school students and found that marijuana use, lack of close friends, tobacco use, loneliness, worry-induced insomnia, and food insecurity were risk factors for suicidal thoughts. A phenomenological study was conducted by Abu-Safa, Russo and Al Kaissi (2016) to investigate the history and experiences of Palestinian female suicide attempters. The study discovered several psychological factors behind the attempts including: low self-efficacy, low self-esteem, negative self-image and maladaptive coping mechanism.

2.4.2 Familial and social factors

The reviewed literature identified several familial and social factors that induce attempted or completed suicide. These factors include dysfunctional families and domestic problems as well as a sense of victimization. In contrast, parental support and supervision, effective communication with adolescents and understanding of their problems and concerns together with peer support at school were recognized as factors for prevention of suicidal thoughts or attempts.

The hospital based cross-sectional studies conducted by Sabari & Shashikiran (2016) and Gade et al. (2018) in Mandya, and South India respectively concluded that the main cause of suicide was family problems. Similarly, Mekaoui, Karboubi, Ouadghiri & Badr Dakhama (2016) conducted a descriptive retrospective study that spanned three years, to assess the situation of children that visited pediatric medical emergencies at the Children's Hospital in Rabat, Morocco, after a suicide attempt. The most frequent cause of attempted suicide was family conflict (35%). Only six children out of 66 suffered mental illnesses and/or sexual assaults while school failure triggered suicide attempt among 1.5% of the children. Furthermore, Nock et al. (2009) led a cross-sectional study to assess the association between lifetime history and age-of-onset of mental disorders and the subsequent first onset of nonfatal suicidal behaviors using data from the W.H.O World Mental Health (W.M.H) Surveys—a series of coordinated global epidemiological surveys carried out across 21 countries. They found that half of people who had seriously considered killing themselves reported a prior lifetime D.S.M-IV[1] disorder in both developed (51.8%) and developing (42.9%) countries. Individuals that planned suicide suffered more severe mental disorders than individuals that carried out an unplanned (i.e., impulsive) attempt. Their study suggests that impulsive attempts may be influenced by other factors such as stressful life events.

Itani, Fischer and Kraemer (2016) assessed the impact of poly-victimization on suicidal ideation among Emirati (U.A.E) adolescents. Secondary data (N = 2520) from the Global School-based Student Health Survey were analyzed. Gender differences were found as victimized females had higher odds of reporting suicidal ideation than their male counterparts after adjusting for known confounders such as risk behavior and factors related to mental health, peer relations, and lack of parental support. Itani, Kraemer and Jacobsen (2017) study on Palestinian adolescents concluded that bullying,

[1] Diagnostic and Statistical Manual of Mental Disorders, 4th Edition

involvement in physical fights and attacks, skipping school, and perceptions of limited parental support were associated with suicidal thinking. A colonel in the Palestinian police reported that family disputes accounted for 32% of the cases of reported suicide in the Occupied Palestinian Territory. Similarly, Abu-Safa, Russo and Alkaissi (2016) found that all 20 women in their study experienced violence including at least one violent victimization. Violent victimization includes experiencing or witnessing rape or sexual assault, domestic violence, collective violence, or child maltreatment. Both Dabbagh (2005) and Abu-Safa, Russo and Alkaissi (2016) gathered that the loss of a father or supporting caretaker due to death or divorce represented a suicide risk.

2.5 Religion and Suicide

Shah & Chandia (2010) conducted a cross-national study to assess the relationship between suicidal attempts and religious affiliation. The study found a significant negative correlation between the overall suicide rate and the percentage of people adherent to Islam from both genders. The researchers explain the cause of the low suicide rate in Islamic countries is due to the value of life in Islamic teachings and the prohibition on taking one's soul (Shah & Chandia, 2010).

2.6 Health Professional Practices in Treatment and Assessment Strategies

Reviewed studies on healthcare providers' willingness to assess, screen and treat suicidality were limited internationally and in the Middle East as they lack adequate assessment and treatment. Betz et al. (2013) assessed in their study the knowledge, attitudes and practices of emergency department providers concerning suicidal patient care and discovered that emergency department providers reported confidence in suicide screening skills but there were gaps in further assessment, counseling and referral skills. Horowitz, Ballard & Pao (2009) in their analytic review on suicide

screening in three different settings: schools, primary care clinics and emergency departments stressed the serious complexities and implications of screening all children and adolescents for suicide. They concluded that managing positive screens is a monumental challenge, including the problem of false positives (people that screen positive but do not actually have the condition) and the burden subsequently posed on care systems.

A survey was conducted among 384 pediatric emergency medicine (P.E.M) physicians regarding mental health screening (Habis et al. 2007). In their findings, 86% of respondents indicated screening for pediatric mental illness in 10% or less of their eligible patients. Overall, 43% of respondents indicated screening only if the chief complaint was psychiatric in nature. The remaining physicians most commonly screened for depression (83%), suicidality (76%), and substance abuse (67%). Only 9% of physicians stated that they used evidence-based medicine in determining their screening practices. Significant limitations to screening identified by respondents include the following: time limitations (93%), absence of a validated screening tool (62%), limited resources (46%), and lack of training (44%). About 88% of physicians believe that a validated and standardized screening tool will improve their ability to identify pediatric mental illness.

Berman et al. (2015) surveyed 268 clinicians to evaluates how liability influences mental health clinicians' assessment of suicide risk. The results show that they were either primed with a legal standard prior to a case vignette or presented the case vignette alone. The study recommended offering specialized training on tools for more accurate suicide risk assessment to trainees and licensed professionals alike.

2.7 Method of Suicide Attempt

The Gade et al. (2018) study of 72 attempted suicide patients admitted to a teaching hospital in South India detected different methods of suicide including drowning, hanging and poisoning. Karam, Hajjar and Salamoun (2008) reviewed different Arab countries including Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Palestine, Saudi Arabia, Sudan and United Arab Emirates unveiling various suicide methods. In Bahrain, 85% of adolescents attempted suicide via an overdose while 15% injured themselves (Karam, Hajjar and Salamoun, 2008). In Egypt, Kerosene was used in all cases of self-immolation, drug overdose was the most common method (60%), while aspirin was the most commonly used licit drug; violent methods (cutting, piercing, burning and jumping) were less common, but when used, they were more often used by males. Ingested poison was consistently reported by attempters in Iraq as an impulsive reaction following an argument or a fight in 78% of the total sample. The most common drugs used in poisoning were psychotropic medication with 39% males and 52.5% females (Karam, Hajjar and Salamoun, 2008). In Kuwait, mostly burning, ingesting drugs, and ingesting poison were the methods used. In Lebanon, drug over-dose, Parathion poisoning, and burning were used while in Oman, ingestion of poison was utilized. In Saudi Arabia, drug overdose and hanging were used by females and self-cutting was used by males. Hanging was the most used method in the United Arab Emirates. In Jordan, self-poisoning and ingested drugs were used. Dabbagh (2005) conducted a study in Palestine and reported that overdose was a common method for committing suicide.

A Palestinian police report shows that suicide was mostly committed through hanging (76%) and then falling from a high altitude (12%) (MAAN News, 2019; SAWA Organization, 2019).

Chapter Three: Methodology

3.1 Introduction

This chapter describes the methodology with detailed information on the research setting, study design, sample size, research instruments, and the procedures adopted to obtain the information, the analysis used to interpret the quantitative and qualitative data, as well as the study ethics and code of conduct.

3.2 Study Design

In this study, a mixed design was used. A concurrent mixed approach was adopted and involved simultaneously collecting quantitative and qualitative data. The mixed method design helped generate more complete and in-depth data. The quantitative descriptive cross-sectional design was collected using self-reported questionnaires for suicide attempters and retrospective review from medical record files using a checklist in order to analyze treatment measures. The qualitative data was collected using semi- structured individual interviews and focus group discussions with healthcare providers and key informants.

3.3 Study Setting

The sample included four government hospitals in three different governorates in the Southern West Bank: Beit-Jala Governmental Hospital, Bethlehem Psychiatric Governmental Hospital, Yatta Governmental Hospital (Abu Al Hassan) and the Jericho Governmental Hospital. The study focused on emergency units where most attempted suicide patients receive medical treatment. The sample hospitals were selected in cooperation with the Ministry of Health (M.o.H) to respond to its needs. The Bethlehem Psychiatric Hospital was added to the list to avoid neglecting psychiatric disorders related suicide cases.

The number of beds in emergency units include nine beds in the Beit-Jala Hospital; seven beds in the Yatta Governmental Hospital seven beds, and 10 beds in the Jericho Governmental Hospital. The Psychiatric Hospital did not have any emergency units to treat attempted suicide patients, who are referred to acute care units of others hospitals.

The Beit-Jala Governmental Hospital in Bethlehem has 131 beds, 79 doctors, 142 nurses and 41 paramedical staff (M.o.H, 2016). The Bethlehem Psychiatric Governmental Hospital has 180 beds, 12 doctors, 71 nurses and 4 paramedical staff. The Yatta Governmental Hospital had 34 beds, 22 doctors, 53 nurses and 17 paramedical staff.
The Jericho Governmental Hospital has 54 beds, 32 doctors, 56 nurses and 15 paramedical staff (M.o.H, 2016).

3.4 Target Population

Respondents were selected based on purposive sampling (quantitative and qualitative components). Purposive sampling consists of non-probability sampling based on the characteristics of a population and the objective of the study. The sample thus included people with the most knowledge about the field at study.

In the quantitative component, the sample included 100 patients with a previous history of attempted suicide with admission to an emergency or other department in one of the four hospitals covered in the study. Eighty-three attempters accepted to participate, with a response rate of 83%. A retrospective review of attempted-suicide patient medical records was conducted in all four hospitals. Seventy-five medical files of the surveyed attempted suicide patients were analyzed and reviewed. Additionally, 150 healthcare providers (nurses, midwives, social workers and physicians that previously worked on attempted suicide cases) were asked to participate in this study; 116 healthcare providers agreed to participate in this study with response rate of 77.3%.

In the qualitative component, 10 key informants were interviewed using semi-structured interviews. They were recruited according to the following inclusion criteria:

1. Representative of Ministry of Higher Education (N°=1)
2. Representatives of W.H.O (N°=1)
3. Representatives from U.N.R.W.A (N°=1)
4. Healthcare workers (physicians, nurses and midwives working in governmental hospitals and in mental health unit) (N°=4)
5. Psychiatrist in N.G.O's (N°=1)
6. Representatives from police units and Attorney General (N°= 2)

Tables 1 shows the socio-demographic characteristics of the interviewed key informants.

Table (1) Socio-demographic characteristics of key informants

No	Age	Gender	Education	Specialty	Institution
1	43	F	PhD	Psychiatrist	Mental health unit
2	46	F	PhD	Psychiatrist	NGO
3	47	M	PhD	Psychiatrist	Mental health unit
4	50	M	PhD	Psychiatrists	Hospital
5	40	M	Master	Psychologist	UN
6	42	F	Master	Psychologist	WHO
7	52	M	Master	Education	MoH

8	51	F	Master	Nursing	Hospital
9	39	M	Master	Law	Police
10	27	F	Master	Law	Police

Additionally, five focus group discussions (5-7 members in each focus group constituted 33 participants) were organized. All focus group discussions were facilitated by the researcher assistant, holder of a m=Master's degree in psychotherapy, who has adequate training on conducting interviews. One focus group was held with the representatives of the Palestinian National Committee for Suicide Prevention Response (eight members). Four focus group discussions (25 participants) were conducted with healthcare workers (physicians, nurses, social workers, police and midwives) with previous experience in handling attempted suicide patients (see table 2 below of the sample disaggregated by gender).

Table (2) Distribution of interviewed key informants and healthcare providers by gender

Focus group participants		No	Male	Female
Key informants	Representatives of the Palestinian National Committee for Suicide Prevention Response	8	2	6
	Beit-Jala Hospital	7	7	0
	Bethlehem Psychiatric Hospital	5	2	3

Healthcare providers	Yatta Hospital	6	5	1
	Jericho Hospital	7	5	2
	Total	**33**	**21**	**12**

Seven individual interviews were conducted with family members that have a relative with a previous history of attempted suicide. The socio-demographic characteristic details of family members as reported by the interviewed family members are presented in tables 3 and 4.

Table (3) Distribution of interviewed family members by gender

Individual interviews		No	Male	Female
Family members	Mother	3	0	3
	Father	1	1	0
	Brother	1	1	0
	Sister	2	0	2
Total		7	2	5

Table (4) Self-reported family members' socio-demographic characteristics

N°	Relationship to attempted suicide patient	Age	Self-reported socioeconomic status	Education	Place of residence
1	Mother	70	Low	Secondary school	City
2	Father	48	Middle	Diploma	Village
3	Mother	53	Middle	Primary school	Camp
4	Sister	41	Middle	Secondary school	Camp
5	Brother	30	Middle	Secondary school	Camp
6	Mother	57	Low	9th grade	Camp
7	Sister	39	Low	Secondary school	Camp

Individual interviews and focus group discussions continued until the researchers were satisfied with the data collected and no new data emerged.

3.5 Construction of Questionnaire Design

The study questionnaires and interview guides were self-constructed by the researcher after reviewing related literature. The questionnaires were formulated to answer the study questions. Two questionnaires were built for attempted suicide patients by the researcher. The study utilized the Intervention Strategies towards Suicidal Behaviors Questionnaire (I.S.B.Q) developed by Rothes and Henriques (2018) to examine

healthcare providers' practice and attitudes towards attempted suicide patients (see Annex 4). The questionnaire was translated to Arabic by the researcher and reviewed by experts to test for validity. Three interview guides were developed by the researcher for key informants, healthcare providers and family members. The three interview guides were designed in Arabic and relied on open-ended questions (see Annexes 1, 3 and 6).

3.6 Study Instruments

3.6.1 Quantitative questionnaire

The two-part questionnaire for attempted suicide patients was designed in Arabic for easier access by the respondents (Annex 4). The first part contained a short demographic questionnaire which was constructed to collect information on participants' gender, age group, marital status, education level, place of residence, number of previous suicide attempts, psychiatric diagnosis, previous family history of suicidal attempts, cause of suicide attempts, methods of suicide attempts, and the interval between the last suicide attempt and medical intervention. The second part of the questionnaire assessed patients' perceptions of the treatment and assessment strategies in the suicide related services. The questionnaire contains 44 questions with three choices: yes, no and abstention. A "yes" answer indicates a positive perception while "no" indicates a negative perception.

A medical record questionnaire was designed in Arabic and assessed intervention strategies with attempted suicide patients when admitted to the emergency department or the hospital (Annex 5). It comprises 23 questions with "yes" or "no" answers. The first step in designing the patient's medical records questionnaire was an assessment of the data available in the records. The researcher collaborated with the clinical staff (doctors and nurses) that document most the medical records to run an

assessment based on previous experience. The questionnaire was organized in a user-friendly manner.

The healthcare providers' questionnaire (Annex 2) consists of two parts: the first part includes socio-demographic information regarding the healthcare providers such as place of residence, age, gender, specialty, education, years of experience, number of suicide attempts attended to in the last five years, number of suicide attempts handled monthly, previous training, and previous contact with suicidal behaviors in clinical practice. The second part addresses Intervention Strategies towards Suicidal Behaviors Questionnaire (I.S.B.Q) developed by Rothes and Henriques (2018) to examine healthcare provider practices towards attempted suicide. It contains 39 questions using the five Likert research design with a scale from "not likely at all" to "very likely." This part was composed of 39 questions, the highest code was 5, which makes the highest total score 195. When disaggregated by scale, the answers were as follows:

- Very likely (1): if the total of practice ranked from 157-195
- Likely (2): if the total of practice ranked from 118-156
- Somewhat likely (3): if the total of practice ranked from 79-117
- Not very likely (4): if the total of practice ranked from 40-78
- Not likely (5): if the total of practice ranked from 1-39

The cutoff point of the I.S.B.Q questionnaire is as follows:

- Low (negative): 1-78
- Moderate: 79-117
- High (positive): 118-195

3.6.2 Guide for interviews with key informants

Individual interviews were conducted with 10 key informants from the M.o.H, W.H.O, directors of government hospitals, head nurses and individuals from organization that previously worked with attempted suicide patients. The interviews aimed to explore their perceptions of the services provided to attempted suicide clients, unmet services and recommendations for future strategies. All interviews with key informants were conducted by the research assistant. Open ended questions were formulated to gather data regarding the five main themes including perceptions of the services provided to attempted-suicide patients to cover: treatment protocol, unmet services and recommendations for future strategies to inform policy makers and future service, supportive measures design for better handling of cases and assessment of suicide risk, as well as improved documentation of attempted suicide cases. The interviews began with questions on their socio-demographic information (see Annex 3).

3.6.3 Interview guide for focus group with healthcare providers and representatives of the Palestinian National Committee for Suicide Prevention and Response

The focus group discussions were conducted by the research assistant. They provided us with insights on people's opinion and a deeper understanding of the phenomenon under investigation. Focus group interviews were semi-structured, with questions developed from previous literature on causes/factors of suicide attempts, their experience in treatment of attempted suicide cases, the referral protocols, capacities of health professionals and response to suicide risk as well as the quality of documentation and data registry. Interviews focused on exploring existing services and unmet needs to serve attempted suicide patients (see Annex 1).

The recommended size of a focus group is 6-10 people (less than this may limit the amount of collective data gleaned; more can result in fragmentation) (Hancock, 1998). One focus group (eight members) was conducted with the representatives of the Palestinian National Committee for Suicide Prevention and Response and four focus group (25 members in total) included a discussion with healthcare providers.

3.6.4 Individual interview guide for family members

The head researcher and research assistant conducted seven individual interviews with family members that had a relative who previously attempted suicide. The individual interview guide included two parts: the first part started with questions about their personal information and their attempted suicide history. The second part included questions that aimed at exploring the cause of the attempted suicide, their experience with their son/daughter that attempted suicide, treatment strategies that were provided for their relatives and their recommendations (see Annex 6).

Table (5) Instruments of the study and the total count of their questions

Instruments	Questions per Instruments
Attempted suicide patient questionnaire	
* Demographic questionnaire	13 questions
* Patient perceptions of treatment and assessment strategies towards suicide related services	44 questions

Healthcare Providers questionnaire * Demographic questionnaire * Intervention Strategies towards Suicidal Behaviors Questionnaire (ISBQ)	 15 questions 39 questions
Medical record file checklist	23 questions
Key informants interview and representatives of the MdM steering committee focus group guide * Demographic questionnaire * Focus group guide	 9 questions 5 themes, 14 questions
Healthcare providers focus group discussion guide * Demographic questionnaire * Focus group guide	 9 questions 3 themes, 11 questions
Family members individual interview guide * Demographic questionnaire * Interview guide	 10 questions 4 themes, 11 questions

3.7 Validity and Reliability of Study Instruments

3.7.1 Reliability

The reliability of the instruments was measured according to the following: before introducing the questionnaire to the full sample, a pilot study was carried out on a small-scale sample (20 respondents) to seek feedback from the participants regarding the questionnaires, and to assess the clarity and length of questions. To measure the reliability of the scale, the researcher used the Cronbach Alpha Method. An alpha of 0.7 or above is normally considered to indicate a reliable set of items (Taber, 2017). The results indicated that the Alpha Coefficient for attempted suicide patients' perception scale was 0.71 and alpha coefficient for I.S.B.Q Questionnaire was 0.986. Furthermore, Cronbach Alpha was conducted for all attempted suicide patients (83 patients) using the Guttmann Split-Half Coefficient and the Alpha Coefficient was 0.928. These results indicate that the scales were reliable and suitable for use in the study.

Table (6) Internal reliability (Cronbach's Alpha test) of study instruments

Scale	No. of items	Cronbach's Alpha
I.S.B.Q	39	0.986
Patients' perceptions	44	0.71

Internal consistencies of the questionnaires were measured using a pilot sample of twenty (20) respondents. The correlation coefficients between each paragraph in one field and the whole field were measured and showed that the *p*-Values for the majority of the questions are significant at 0.01 and 0.05 level reflecting that the statements of these questions were consistent and valid for their purpose.

Table (7) Correlation coefficient for the domain of attempted suicide patient perceptions of treatment and assessment strategies towards suicide related services

Questions	Pearson Correlation	P Value
1. Did you seek medical care for this attempt	.510**	.000
2. Were you admitted to the hospital overnight because of this attempt?	.452**	.000
3. The hospital team arranged psychiatric follow-up for me	.394**	.000
4. They prescribed medication for me	.626**	.000
5. I was referred to a psychologist	.420**	.000
6. They discharged me without assessment or follow-up	.265*	.016
7. They discharged me and I was referred to psychotherapy	.390**	.000
8. I self-discharged before treatment completion	.357**	.000
9. Resources were lacking and swift action was avoided for financial reasons	.376**	.000
10. I would like people to treat me with the same respect as a patient having a heart attack	.606**	.000
11. I did not receive adequate follow-up after being released from hospital	.457**	.000

12. I was not Involved in decision-making regarding treatment needs	.586**	.000
13. I preferred to be involved in decision-making	.685**	.000
14. I was provided with information on treatment options	.561**	.000
15. I want to be given enough information about treatment	.671**	.000
16. I was provided with additional information on follow-up treatment options such as psychiatric services	.580**	.000
17. I want to have additional information on follow-up treatment options such as psychiatric services	.734**	.000
18. I was given a leaflet on self-harm and suicide	.583**	.000
19. I'd like to have a leaflet on self-harm and suicide	.584**	.000
20. I was given the opportunity to talk openly	.694**	.000
21. Healthcare providers were listening to me and showed empathy	.714**	.000
22. Healthcare providers helped me to attend a support group	.685**	.000
23. I was given enough information on how to take care of myself including how to stay busy and active	.633**	.000
24. I was provided with enough information on how take care of myself including positive talk and self-affirmation	.529**	.000
25. I was provided with enough information on how to take care of myself including the importance of physical exercise	.579**	.000

26. I was provided with enough information on how to take care of myself such as doing things with other people	.536**	.000
27. Health providers supported me while I was in the hospital	.689**	.000
28. Healthcare providers checked on me in a timely manner	.664**	.000
29. Healthcare providers spent enough time with me	.643**	.000
30. Healthcare providers did not explain the proposed treatment plan, including the risk/benefit of my treatment	.351**	.001
31. The environment in the hospital was safe	.623**	.000
32. Health providers blamed me for attempting suicide	.267*	.023
33.Service providers were judgmental	.291*	.013
34. Service providers treated me as a burden to them	.118	.323
34. I was restrained	331**.	.005
35. I was secluded	.550**	.000
36. Healthcare providers did not attempt any other measures before placing me in the restraint/seclusion	.471**	.000
37. I felt that healthcare providers did not make a responsible decision to use restraints/seclusion	.354**	.002
38. The time I was placed in restraints and seclusion was over extended	.418**	.000
39. Being placed in restraints made me reluctant to seek psychiatric care in the future	.396**	.001
40. Healthcare providers did not pay attention to my appeal for help	.447**	.000
41. Healthcare providers did not make frequent checks on me	.392**	.001

while in seclusion		

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

*Correlation is significant at the 0.05 level (2-tailed)

3.7.2 Validity

To ensure validity, all questionnaires and interview guides were submitted for peer review by a panel of three experts with either a Ph.D. or a Master's degrees in mental health (Dr. Samah Jabr, Dr. Ibrahim Ikhmayes, and Mr. Mohammad Miri). The panel did not introduce any changes to the questionnaires, which they evaluated as clear and well designed. Although, the I.S.B.Q questionnaire was previously validated for reliability and construct validity (Rothes and Henriques, 2018), its reliability and validity were tested and examined by experts who evaluated its adequacy for investigating the study variables.

3.8 Data Collection

Recruitment and Consent

Recruitment took place in emergency departments of the three general hospitals and in the acute wards at the psychiatric hospital because these departments have direct contact with attempted suicide patients. Patients and family members were given information sheets regarding the study and were invited to participate through the healthcare providers. The administration of all four hospitals produced a list of the attempted suicide patients they admitted. Attempted suicide patients were contacted by the research team that worked in the four selected hospitals to maintain their confidentiality. Attempted suicide patients were advised to consider their participation. Following their consent, the field researchers contacted them to set the date, time and place of the interview. Family members who expressed interested in participating in the

study were interviewed by the main researcher and the research assistant only, since they are well trained on how deal with attempted suicide patients and their families. Before commencing in data collection, field researchers were trained by the senior researcher on how to conduct interviews and focus group discussions. The senior researcher and field researchers are specialized in mental health and psychology and hence can effectively deal with the patients and their families. Special attention was given to protecting participants from emotional harm, tension and anticipated potential difficulties that can be provoked when reminded of their experiences.

It was planned to record interviews and focus group discussions but some of the interviewed families and healthcare providers refused to audio-record their interviews. Field researchers respected their wish and instead took notes in order to capture the participants' responses in detail. Individual interviews lasted for 60 minutes and focus group discussion took 90 minutes on average. The data collection was conducted between 15/12/2018 to 1/4/2019.

3.9 Challenges encountered in the data collection

The topic under study is very sensitive and therefore generates multiple challenges:

1. Extensive training of field researchers: Field researchers received training on how to interview family members, how to communicate with attempted suicide patients and on how to observe ethical considerations during data collection.
2. Limited literature regarding suicide in Palestine.
3. Difficulties in recruiting attempted cases due to lack of available data in some hospitals, and incomplete documentation of attempted suicide cases, some of which were registered as accidents and injuries without referring to their suicidal attempts. This slowed down the reception of questionnaires from attempted suicide patients and was very time consuming.

4. Data collection through interviews and focus groups took a very long time for preparation and actual sessions.
5. Emergency departments in hospitals were overloaded, which made it difficult to organize focus groups with their medical teams. On some occasions, meetings were rescheduled for another date. This required sometimes up to five visits to the hospital before the research team could conduct the sessions.
6. Psychiatrists expressed their concern regarding the privacy of patients and their mental health when filing the questionnaire. Consequently, the research team had to spend additional time to recruit patients, which delayed the collection and data analysis.
7. A gap in protocols for management, reporting and assessment of attempted cases in hospitals.
8. Travel difficulties in the West Bank due to checkpoints and an inefficient public transport system.

3.10 Ethical Considerations

Prior commencing data collection, an information sheet and consent form was drafted. An information sheet on the nature of the study was handed over to the participants before the start of data collection. Risks and benefits were clarified. Each participant was given enough time to decide whether or not to take part in the study. They were given assurances that their participation was voluntary with the option of leaving the study at any time. The field researchers explained the purpose of the study and assured the participants that the information will be used for research purposes only. Participants were assured that all information will be kept strictly confidential. Any personal information such as names, were removed.

The main researcher is trained to deal with a variety of sensitive issues and endeavored to make the participants feel comfortable and safe during data collection. The

information sheet included names of mental health specialists that were available to provide psychological support for participants at any time on a volunteer basis if needed (free of charge). Both attempted suicide patients and family members were given the names and contact details of the field researchers and main researcher to call them when needed. The research team also called the participants after the data collection to check if they faced any emotional difficulties, or distress after the interview or during data collection.

3.11 Statistical Analysis for Quantitative Study

Data analysis was performed via version 22 of the Statistical Package for Social Sciences (S.P.S.S). Statistical procedures included descriptive statistics such as frequencies and percentages, independent sample t-test, and One-Way ANOVA.

3.12 Data Analysis for Qualitative Data

Thematic analysis is defined as “a method for identifying, analyzing and reporting patterns within data” (Braun and Clarke, 2006, p. 79). In this study, the analysis process involved the identification and generation of themes from data collected in the interviews. It involved the identification and description of both implicit and explicit ideas within the data, including themes. Then codes were developed to represent the identified themes and applied or linked to raw data as summary markers for later analysis.

Chapter Four: Results

4.1 Results of Quantitative Study

4.1.1 Socio-demographic data from attempted-suicide patients

Table (8) shows the sample size, with 83 attempted suicide patients admitted to four governmental hospitals in the West Bank: 26 (31.3%) from the Beit-Jala Hospital, 19 (22.9%) from the Yatta Governmental Hospital, 26 (31.3%) from the Jericho Hospital and 12 (14.5%) from the Bethlehem Psychiatric Hospital. Male suicide-attempters constituted 38.6% (N=32) and females constituted 61.4% (N=51) of the total sample, representing a female-to-male ratio of 5:3. Most of the respondents 42 (50.6%) resided in cities, followed by villages 24 (28.9%) and camps 17 (20.5%). The majority of females 31 (40.79%) were in the (16-25) age group, 10 (13%) in the (26-35) age group, 4 (5.26%) 36-45 age group and only 2 (2.63%) were in the 46-55 age group. While the majority of males 14 (18%) were from the 26-35 age group, 9 (11.8%) from 16-25, 4 (5.26%) from 36-45 and 2 (2.63%) were from the 46-55 age group.

As self-reported by the respondents, 24 (28.9%) of the respondents held a higher education diploma, while 23 (27.7%) were illiterates, 15 (18.1%) hold secondary level education, 14 (16.9%) completed middle school level and a small minority 1 (2%) have master's degree.

As self-reported by the respondents, 57 (68.7%) of them belonged to the middle socio-economic class, 19 (22.9 %) were from the lower socio-economic class and only 6 (7.2%) were from the upper socio-economic class. The majority of respondents - 47 (56.6%) were unmarried, 32 (38.6%) were married and 4 (4.8%) were divorced. The majority of the surveyed suicidal attempters 48 (57.8%) reported no psychiatric diagnosis, and approximately one-third of them 24 (28.9%) reported depression, 5 (6%) suffered schizophrenia, 3 (3.6%) had personality disorders and 3 (3.6%) with post-traumatic

stress disorder. The majority of the sample 77 (92.8%) of them did not report a family history of suicide attempts while only 6 (7.2%) referred to a family history of suicide attempts. The majority of respondents 82 (98.8%) had no family member who died of suicide and only 1 (1.2%) had a relative that completed suicide. The majority of them 45 (54.9%) had attempted suicide once previously, 21 (25.6%) attempted suicide twice, 8 (9.8%) attempted three times, 3 (3.7%) had four attempts, and 5 (6.1%) had more than five attempts.

Differences between male and female attempters regarding socio-demographic characteristic shows the majority of the females (15) held a higher education degree while the males were illiterate (11). The majority of both genders were single and live in the city. 48 (28 females and 20 males) did not report a psychiatric diagnosis while 8 males and 13 females reported depression, 26 females reported one previous attempt and 13 had 2 previous attempts. 19 males had one previous attempt and 8 males had two previous attempts.

Table (8) Distribution of the attempted suicide participants according to socio-demographic data (n=83)

Hospital	No	%
Beit Jala Hospital	26	31.3
Yatta Governmental Hospital	19	22.9
Jericho Governmental Hospital	26	31.3
Bethlehem Psychiatric Hospital	12	14.5
Total	83	100.0
Gender		
Male	32	38.6
Female	51	61.4
Total	83	100.0

Age /years			
16-25	Male	9	11.84
	Female	31	40.79
26-35	Male	14	18.42
	Female	10	13.16
36-45	Male	4	5.26
	Female	4	5.26
46-55	Male	2	2.63
	Female	2	2.63
	Missing	7	3 Males 4 Females
Place of residence			
	City	42	50.6
	Village	24	28.9
	Camp	17	20.5
	Total	83	100.0
Self-reported level of education			
	Illiterate	23	27.7
	Elementary school level	6	7.2
	Middle school level	14	16.9
	Secondary school level	15	18.1
	Intermediate Diploma	24	28.9
	Bachelor's degree	0	0
	Master's Degree	1	1.2
	Total	83	100.0
Socio-economic status			
	Lower	19	22.9

Middle	57	68.7
Upper	6	7.2
Total	82	98.8
Missing	1	1,2
Marital status		
Unmarried	47	56.6
Married	32	38.6
Divorced	4	4.8
Total	83	100.0
Clinical characteristics		
Self-reported psychiatric diagnosis		
No diagnosis	48	57.8
Depression	24	28.9
Schizophrenia	5	6.0
Personality disorders	3	3.6
Post-traumatic stress disorder	3	3.6
Total	83	100.0
Previous family history of attempted suicide		
Yes	6	7.2
No	77	92.8
Total	83	100.0
Previous family history of completed suicide		
Yes	1	1.2
No	82	98.8
Total	83	100.0
Number of previous suicide attempts		
1	45	54.9

2	21	25.6
3	8	9.8
4	3	3.7
≥5	5	6.1
Total	82	98.8
Missing	1	1.2

Table 9 shows that in the Beit-Jala Hospital, fourteen patients held a higher education diploma and three completed secondary school level. In the Yatta Hospital, six patients completed their secondary education, while five were illiterate, four completed middle school, three held a higher education diploma and one held a master's degree. In Jericho, eight held middle school level, seven were illiterate, six completed their secondary education and three held an intermediate diploma. In the Bethlehem Psychiatric Hospital, two were illiterate, four had elementary school level, two with middle school level, and four held a higher education certificate.

Table (9) Self-reported level of education of attempted suicide patients by hospital

Level of education	Beit Jala	Yatta	Jericho	Mental hospital	P value
Illiterate	9	5	7	2	0.000
Elementary school level	0	0	2	4	
Middle school level	0	4	8	2	
Secondary school level	3	6	6	0	
Higher education	14	3	3	4	
Master's degree	0	1	0	0	

4.1.2 Methods adopted for attempting suicide

The predominant method adopted for the attempted-suicide was hanging by 47 (56.6%), followed by ingestion of poison (detergent and insecticides) by 15 (18.1%), 7 (8.4%) with firearms, 4 (4.8%) by overdose, 3 (3.6%) by cutting, 1 (1.2%) by jumping from high altitude and 5 (6.0%) used other methods (see table 10 below).

Table (10) Method adopted for attempting suicide

Method adopted	No	%
Hanging	47	56.6
Poison (detergent and insecticides)	15	18.1
Firearms	7	8.4
Other	5	6.0
Overdose (drugs)	4	4.8
Cutting	3	3.6
Jumping from high altitude	1	1.2
Total	82	98.8
Missing	1	1.2

4.1.2 Cause of Attempting Suicide

This study assessed the cause of attempted-suicide and found that marital and romantic conflicts were the main cause of the attempts 35 (42.2%), followed by family conflict 29 (34.9%), loss of self-control 12 (14.5%), work stress 2 (2.4%) and only 1 (1.2%) for pain related causes and 3 (3.6%) had other causes.

Table (11) Cause of attempted suicide

Causes of attempted-suicide	No	%
Marital conflict and romantic conflicts	35	42.2
Family conflict	29	34.9
Feeling out of control	12	14.5
Other	3	3.6
Work stress	2	2.4
Pain related	1	1.2
Total	82	98.8
Missing	1	1.2

4.1.3 Managing suicide attempts

Participants were asked about the intervals between their last suicide attempt and receiving medical intervention. The majority 62 (74.7%) explained they received the medical intervention within the first two hours after the attempt. On the other hand, 12 of them (14.5%) received medical care after more than two hours but less than four hours. Only 1 (1.2%) received medical intervention after four hours and less than six hours and only five (6.0%) were treated after more than six hours of the attempt.

Table (12) Interval between suicide attempt and receiving medical intervention

Interval	No	%
≤ 2 hours	62	74.7
>2 and ≤4 hours	12	14.5
>4 and ≤6hours	1	1.2
>6	5	6.0
Total	80	96.4
Missing	3	3.6

4.1.4 Patient perceptions of treatment and assessment strategies toward suicide related services

Table (13) shows the attempted suicide patients' perceptions of the treatment and evaluation strategies they received at the emergency department and in hospitals after their attempted suicide. Twelve (14%) explained they did not receive any medical care in the emergency department after the attempt. The majority of the patients 75 (90.4%) were admitted to the hospital for one night after the attempt. Moreover, 74 (89.2%) patients were given medication after the attempt. Half of the attempters 42 (50.4%) reported that healthcare providers arranged a follow-up appointment with the psychiatrist while more than a third 36 (43.4%) had no arrangements for follow-up with a psychiatrist. More than half of them (48 57.8%) were referred to a psychologist while 32 (38.6%) were not. Half of them 42 (50.6%) mentioned that they were discharged after evaluation of their case. However, more than one-third of them 37 (44.6%) reported not receiving any assessment. The majority 54 (65.1%) were provided with a follow-up plan before being discharged. 45 (54%) reported not receiving any follow-up care from healthcare providers upon release from hospital.

Approximately a third of the attempters 25 (30%) discharged themselves against medical advice (refusing to stay for observation). Interestingly, 26 (31%) believed that scarce financial resources in governmental hospitals undermined the possibility of taking proper action. The majority of the patients 61 (73%) expressed their wish to see healthcare providers treat them like other medically ill patients. Most of the patients 46 (54.4%) reported that they were not involved in decision-making related to their treatment and more than half of them 55 (66%) wanted to be part of this decision.

Regarding receiving information about their treatment, half of them 45 (54%) reported that they were provided with information about the treatment plan while a third of them 30 (36%) reported not receiving any information from healthcare providers regarding their treatment. Furthermore, 51 (61.4%) of the attempters did not receive

any leaflet on suicide-risk and self- harm and around half of them 47 (56.4%) reiterated their wish to receive more information. Half of the participants 40 (49%) believed that healthcare providers handed them enough information, but around the third 33 (39%) said they did not receive information on the benefits and risks of the treatment administered at the time of the attempt in the emergency department.

More than half of the participants said they received support from healthcare providers and felt comfortable talking to them. On another level, 53 (63.9) felt they were treated with empathy 55 (66.3%). While 59 (71%) received support from healthcare providers, who regularly checked on them, 51 (61.4%) were given the opportunity to attend a support group and the majority 63 (75.9%) reported that healthcare providers dedicated enough time to them. However, one-third of patients 26 (30%) reported healthcare providers blamed them for the attempt, and 24 patients (28.9%) said healthcare providers were judgmental. From these patients, 26% reported feeling as a burden on healthcare providers.

Most of the patients reported that they were not restrained or secluded 11 (79%) and 21 (57%) respectively. Of the surveyed patients, 49 (59%) believed that the hospitals had clear guidelines on the treatment routine for suicidal patients. Generally, the attempted suicide patients expressed positive views about their case evaluation and treatment after the attempts.

Table (13) Patient perceptions of treatment and assessment strategies towards suicide related services at the time of emergency directly after the attempt

Question	Yes		No		No answer	
	N°	%	N°	%	N°	%
Did you seek medical care for this attempt?	69	83.1	12	14.5	2	2.4
Were you admitted to the hospital overnight because of this attempt?	75	90.4	7	8.4	1	1.2

Psychiatric follow-up arranged by the team at the hospital	42	50.6	36	43.4	5	6.0
They prescribed medication for me	74	89.2	6	7.2	3	3.6
I was referred to a psychologist	48	57.8	32	38.6	3	3.6
They discharged me without assessment or follow-up	37	44.6	42	50.6	3	3.6
They discharged and referred me to follow-up	54	65.1	25	30.1	3	3.6
I self-discharged myself before completion of treatment	25	30.1	52	62.7	5	6.0
Resources were insufficient, which prevented any swift action for financial reasons	26	31.3	48	57.8	8	9.6
I would like people to treat me with the same respect as a patient having a heart attack	61	73.5	14	16.9	7	8.4
I did not receive enough follow-up after my release from hospital	42	50.6	32	38.6	8	9.6
I was not involved in the decision-making regarding treatment needs	46	55.4	26	31.3	9	10.8
I would prefer to be part of the decision-making	55	66.3	18	21.7	8	9.6
I was provided with information on treatment options	45	54.2	30	36.1	7	8.4
I want to be given enough information about treatment	57	68.7	15	18.1	10	12.0
I was provided with additional information on follow-up treatment options such as	44	53.0	30	36.1	8	9.6

psychotherapy						
I want to have additional information on follow-up treatment options such as psychotherapy	55	66.3	17	20.5	10	12.0
I was given a leaflet on self-harm and suicide	22	26.5	51	61.4	10	12.0
I'd like to have a leaflet on self-harm and suicide	47	56.6	24	28.9	11	13.3
I was given the opportunity to talk openly	53	63.9	16	19.3	13	15.7
Healthcare providers were listening to me and showed empathy	55	66.3	17	20.5	9	10.8
Healthcare providers helped me attend a support group	51	61.4	22	26.5	8	9.6
I was provided with enough information on how take care of myself such as doing things to stay busy	46	55.4	27	32.5	8	9.6
I was provided with enough information on how take care of myself such as positive talk and affirmation	40	48.2	30	36.1	11	13.3
I was provided with enough information on how take care of myself such as doing physical exercise	30	36.1	38	45.8	14	16.9
I was provided with enough information on how take care of myself such as doing things with other people	33	39.8	34	41.0	14	16.9
Healthcare providers supported me while I was in the hospital	58	69.9	12	14.5	12	14.5

Healthcare providers checked on me regularly	59	71.1	13	15.7	10	12.0
Healthcare providers spent enough time with me	63	75.9	11	13.3	8	9.6
Healthcare providers did not explain the proposed treatment plan, including the risk/benefit of my treatment	33	39.8	40	48.2	9	10.8
The environment in the hospital was safe	64	77.1	5	6.0	3	3.6
Healthcare providers blamed me for attempting-suicide	26	31.3	42	50.6	4	4.8
Healthcare providers were judgmental	24	28.9	44	53.0	4	4.8
Healthcare providers treated me as a burden to them	22	26.5	47	56.6	3	3.6
I was restrained	11	13.3	59	71.1	2	2.4
I was secluded	21	25.3	48	57.8	3	3.6
Healthcare providers did not attempt any other measures before placing me in the restraint/ seclusion	13	15.7	55	66.3	3	3.6
I felt that healthcare providers did not make a responsible decision to use restraints/ seclusion	16	19.3	53	63.9	2	2.4
The time I was placed in restraints and seclusion was over extended	10	12.0	59	71.1	3	3.6

Being placed in restraints made me reluctant to seek psychiatric care in the future	6	7.2	59	71.1	6	7.2
Healthcare providers did not pay attention to my appeal for help.	9	10.8	56	67.5	7	8.4
Healthcare providers did not make frequent checks on me while in seclusion	11	13.3	55	66.3	6	7.2
Healthcare providers supported me a lot	52	62.7	13	15.7	7	8.4
The institution lacks clear protocol (guidelines) of how to deal with suicidal patients	49	59.0	17	20.5	6	7.2

4.1.5 Medical record findings

Seventy-five (75) medical records of attempted-suicide patients were consulted. The review shows that healthcare providers adequately assessed suicide risks for 95% of attempted suicide patient cases. 73% of the reviewed files show that medications were administered adequately to the attempters. In 79% of the reviewed files, patients were moved to ward rooms and healthcare providers continuously checked patients (60%) and mostly high-risk patients (89%). Healthcare providers supported patients emotionally (90%). However, 72% of the patients were not referred to mental health specialists. The reviewed files also show that 31% of the patients did not receive any counseling after the attempts. 68% of the patients were discharged after making arrangement for follow-up with a psychiatrist while 38% of the patients were discharged with no arrangement. All interventions, assessments and treatment measures were documented in the records.

Table (14) Medical file checklist results

Item	Yes		No		Not mentioned	
	N°	%	N°	%	N°	%
1. Patient admitted to emergency unit for assessment	75	100	00	00	00	00
2. A preliminary suicide risk assessment was carried out	71	94.7	4	5.3	00	00
3. Counseling was used with attempted suicide client	51	68.9	00	00	23	31.1
4. Voluntary medication was administered	73	97.3	2	2.7	00	00
5. Emergency medications were administered	71	95.9	3	4.1	00	00
6. Food and drink and other assistance was provided as a first line regiment	39	52.0	36	48.0	00	00
7. Restraints or seclusion was used as a second line regiment	20	26.7	31	41.3	24	32.0
8. Continuous monitoring of attempted suicide patients under restraint or seclusion, with intervals of no longer than 15-minute	45	60.0	6	8.0	24	32.0
9. The patient moved to a ground floor room after being assessed as high or medium risk level	59	78.7	16	21.3	00	00
10. High risk suicide attempters received care in easily observable rooms, with strictly monitored exits	67	89.3	7	9.3	1	1.3
11. A calming support person stayed with the person at risk	68	90.7	6	8.0	1	1.3
12. Specialized professionals (counselors) were solicited as soon as the patient became medically stable	63	84.0	11	14.7	1	1.3
13. Immediate referral to mental health service or where appropriate, other specialized service for a	21	28.0	54	72.0	00	00

comprehensive suicide risk assessment						
14. The therapy team was notified of the preliminary suicide risk assessment and management plan	67	89.3	8	10.7	00	00
15. The decision to discharge the patient was made following arrangement of follow-up treatment by the mental health service provider	46	61.3	29	38.7	00	00
16. Management plan documented in the medical records	71	94.7	3	4.0	1	1.3
17. The level of assessed risk documented in the records	70	93.3	4	5.3	1	1.3
18. Frequency of observations documented	66	89.2	8	10.8	00	00
19. Assignment of a 'special' nurse was documented	59	78.7	16	21.3	00	00
20. Frequency of re-assessment documented	67	89.3	8	10.7	00	00
21. Management plan documented information regarding triggers, stressors, precursors, methods/ plans and the predicted consequences of different factors on the patient including anticipation of likely circumstances that may escalate the patient's risk	49	65.3	24	32.0	2	2.7
22. Management plan documented information on plans and the predicted consequences of different factors on the patient	46	61.3	29	38.7	00	00

4.1.6 Relationship between patient perceptions of the treatment and assessment strategies of suicide related services and the socio-demographic factors

In tables 15 and 16, no significant association was found between patient perceptions of the treatment and the assessment strategies of suicide related services according to gender, place of residence, level of education, socio-economic status, marital status, and psychiatric diagnosis. No significant relation was also found between patient perceptions of the treatment and the assessment strategies of suicide related services and family history of attempted suicide, family history of completed suicide, number of suicide attempts, cause of suicide, and method of suicide. Table 17 shows the distribution of patients according to their mental illnesses by hospitals. It shows that most of the patients (48) were not diagnosed with any mental disorder, while 24 have depression, 5 have schizophrenia, and 3 have personality disorders in addition 3 were diagnosed with Post-Traumatic Stress Disorders (P.T.S.D). In the Bethlehem Psychiatric Hospital, 3 patients were not diagnosed with any disorder, while 3 were diagnosed with depression, and 4 have schizophrenia, 1 has P.T.S.D and 1 has a personality disorder.

Table (15) Association between gender and patient perceptions of treatment

		N°	Mean	Std. Deviation	Std. Error Mean	P value
Gender	Male	30	1.33	.47	.087	.121 NS
	Female	45	1.42	.49	.074	

(S= significant p<0.05, NS=non significant)

Table (16) Association between patient perceptions of treatment and socio-demographic factors

	Sum of Squares	Df	Mean Square	F	Sig.
Place of residence					
Between Groups	1.159	2	.58	2.51	.088 NS
Within Groups	16.627	72	.23		
Total	17.787	74			
Level of Education					
Between Groups	.820	4	.20	.84	.501 NS
Within Groups	16.966	70	.24		
Total	17.787	74			
Socio-economic status					
Between Groups	.236	2	.11	.48	.616 NS
Within Groups	17.170	71	.24		
Total	17.405	73			
Marital status					
Between Groups	.320	2	.16	.66	.520 NS

Within Groups	17.467	72	.24		
Total	17.787	74			
Psychiatric diagnosis					
Between Groups	1.244	4	.31	1.31	.273 NS
Within Groups	16.543	70	.236		
Total	17.787	74			
Family history of suicide					
Between Groups	.054	1	.05	.223	.638 NS
Within Groups	17.732	73	.24		
Total	17.787	74			
Family history of completed suicide					
Between Groups	.996	4	.24	1.03	.397 NS
Within Groups	16.639	69	.24		
Total	17.635	73			
Method of suicide					
Between Groups	1.290	6	.21	.88	.514 NS

Within Groups	16.345	67	.24		
Total	17.635	73			

(S=significant p<0.05, NS=non significant)

Table (17) Differences of (self-reported) psychiatric diagnosis of attempted suicide patients by hospitals

Diagnosis	Beit-Jala	Yatta	Jericho	Mental Hospital	P value
No diagnosis	21	10	14	3	0.000
Depression	5	4	12	3	
Schizophrenia	0	1	0	4	
Personality disorder	0	2	0	1	
Post-traumatic stress disorders	0	2	0	1	

4.1.7 Healthcare providers' socio-demographic characteristics

The majority of the participants (healthcare providers) 81 (70%) were males and 34 (30%) were females (Figure 2).

Figure 1 shows that 39 (34%) of the healthcare providers work in the Bethlehem Psychiatric Hospital, 27 (23%) in the Jericho Hospital, 26 (22%) in the Beit-Jala Hospital and 24 (21%) in the Yatta Hospital.

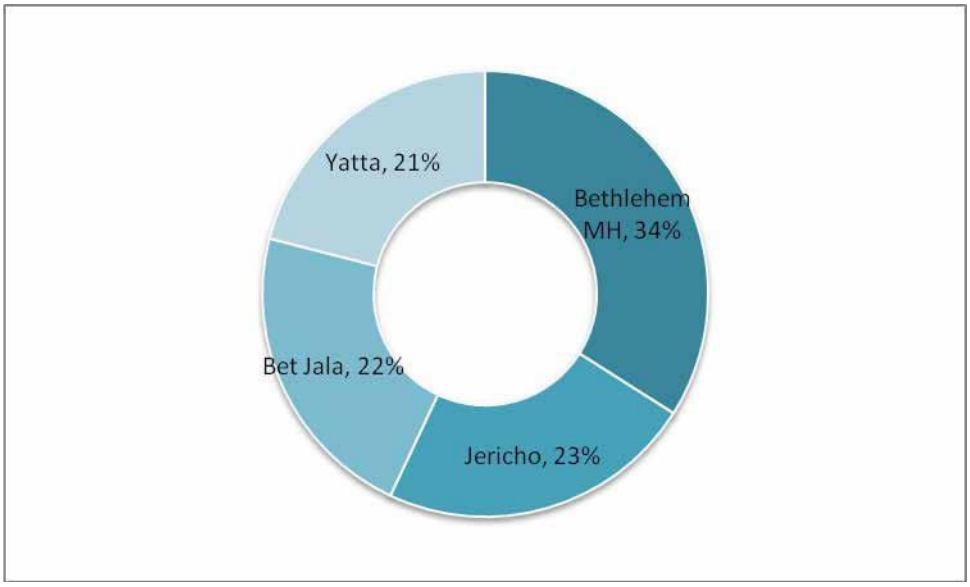


Figure (1) Distribution of the healthcare providers by the hospital

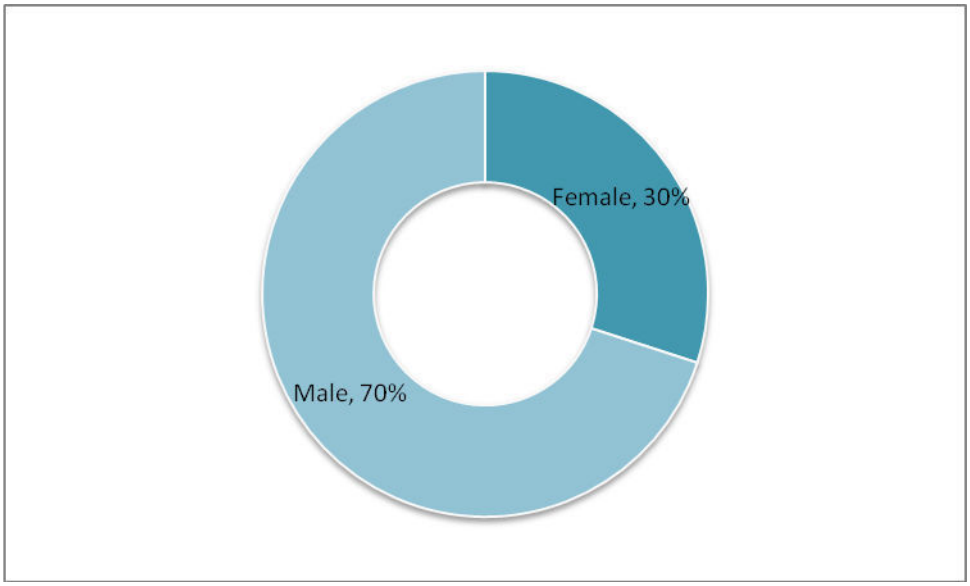


Figure (2) Distribution of the healthcare providers by gender

Figure 3 shows that the majority of healthcare providers (50) belonged to the 23-34 age group, (34) from 45-53 years old and (23) from 35-44 years old.

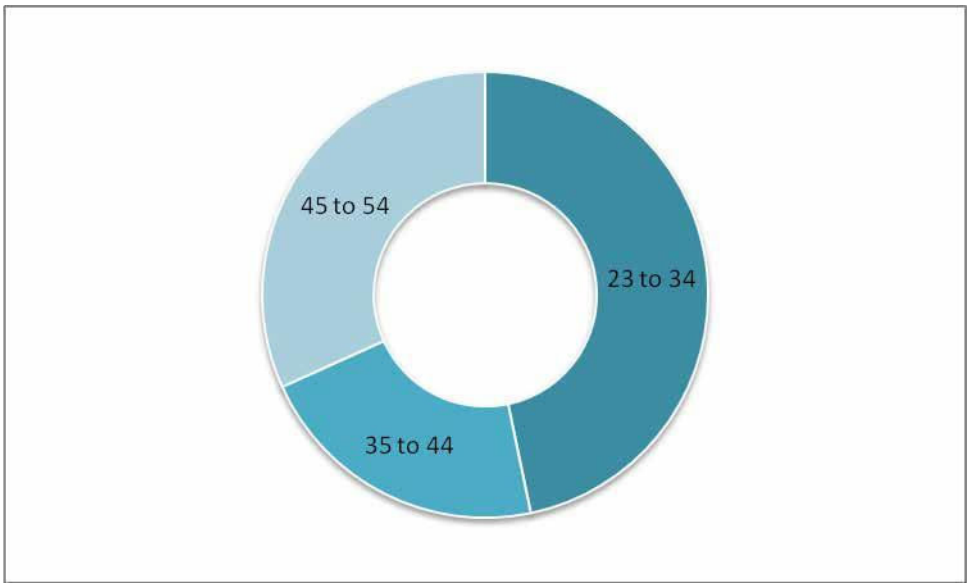


Figure (3) Distribution of the healthcare providers by age

Figures 4 and 5 show that the majority of male healthcare providers 36 (33%) belong to the 23-34 age group, 28 (26%) are from 35-44 years old, 13 (12%) from 45-53 years old. While the majority of female health providers 14 (13%) were from 23-34 years old, 6 (5%) from 35-44 years old and 10 (9%) from 45-53 years old.

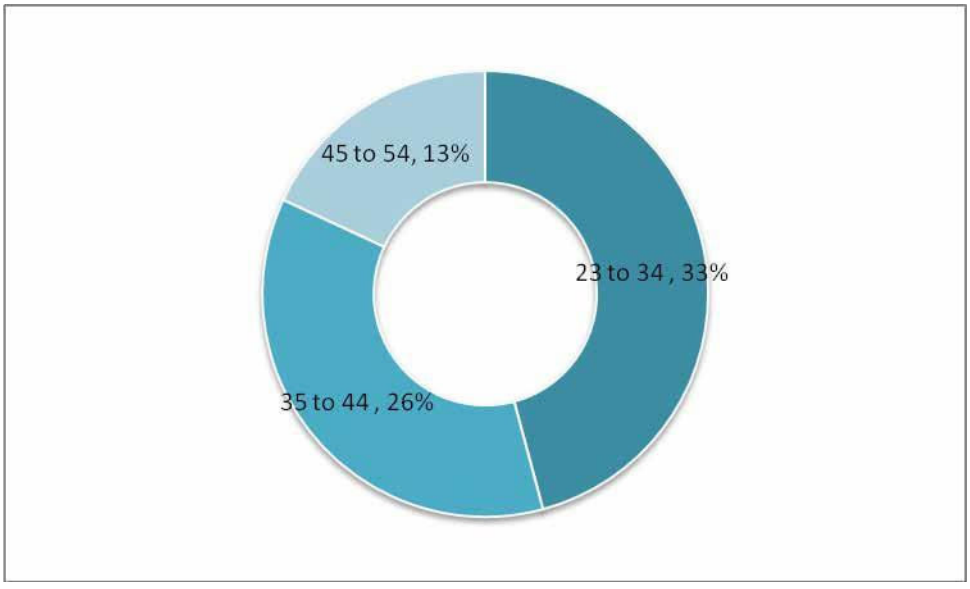


Figure (4) Distribution of the male healthcare providers by age

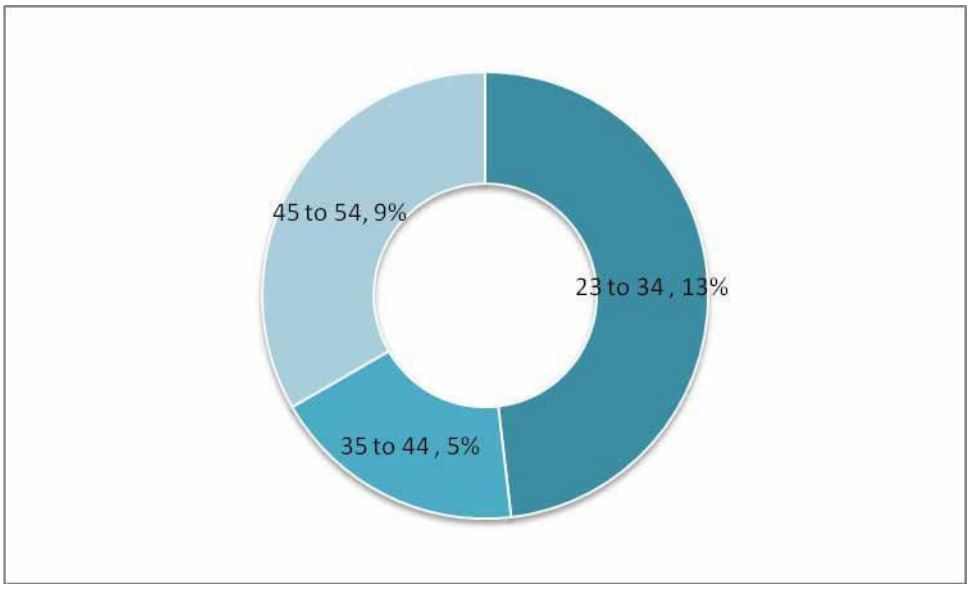


Figure (5) Distribution of female healthcare providers by age

Figure 6 shows that the majority of the healthcare providers 56 (49%) live in the city, 37 (32%) in villages and 22 (19%) in camps.

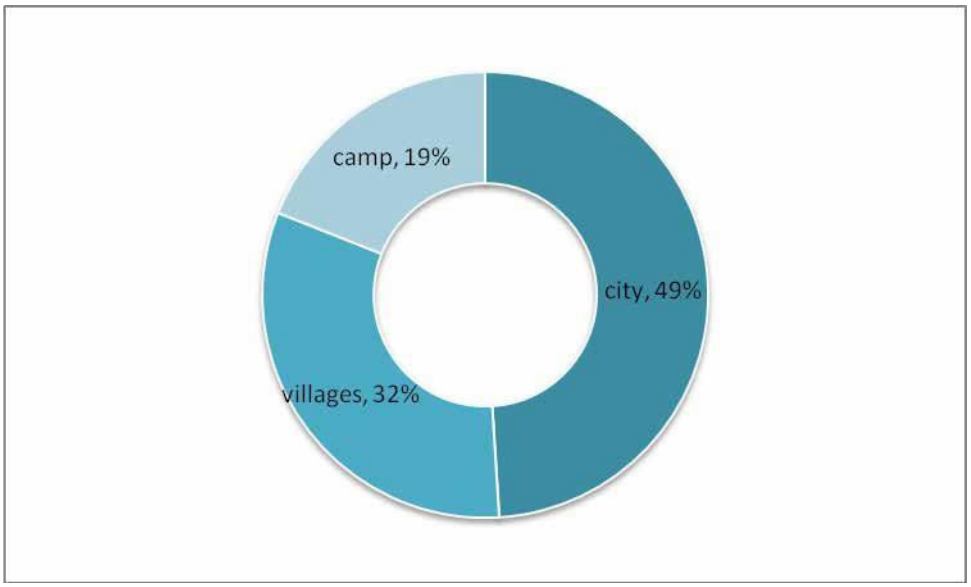


Figure (6) Distribution of the healthcare providers according to place of residence

The majority 70 (60%) of them hold a bachelor's degree, 23 (20%) hold a master's degree, 19 (17%) hold an intermediate diploma and only 4 (3%) hold a doctoral degree (Ph.D.).

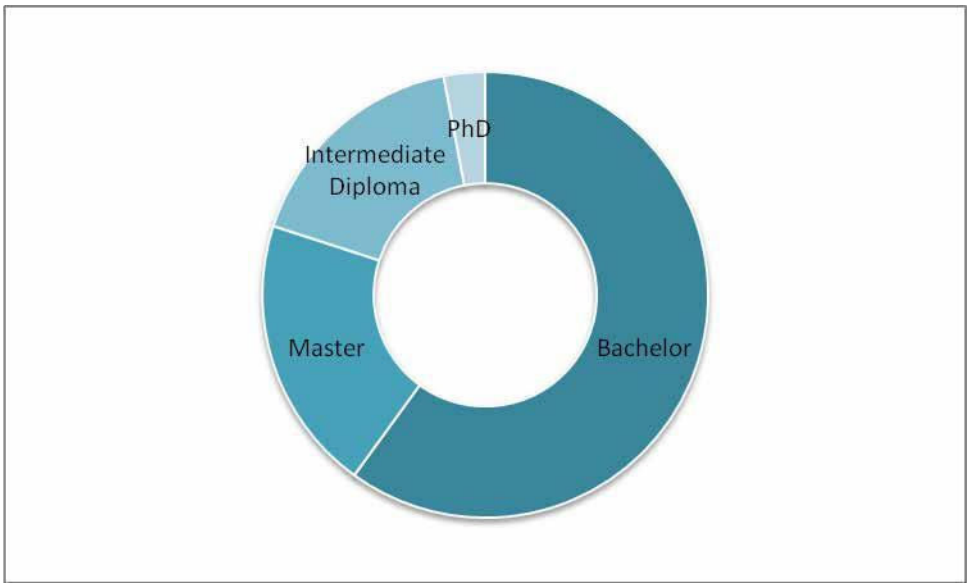


Figure (7) Distribution of the healthcare providers according to their level of education

Figure 8 represents the job title of the surveyed healthcare providers in the four hospitals. The majority of the participants were nurses 76 (67%), followed by doctors 24 (21%), social workers 4 (3%) (One social worker in Yatta Hospital, one in Beit-Jala and two in the psychiatric hospital), others 9 (8%) and 1 midwife (1%).

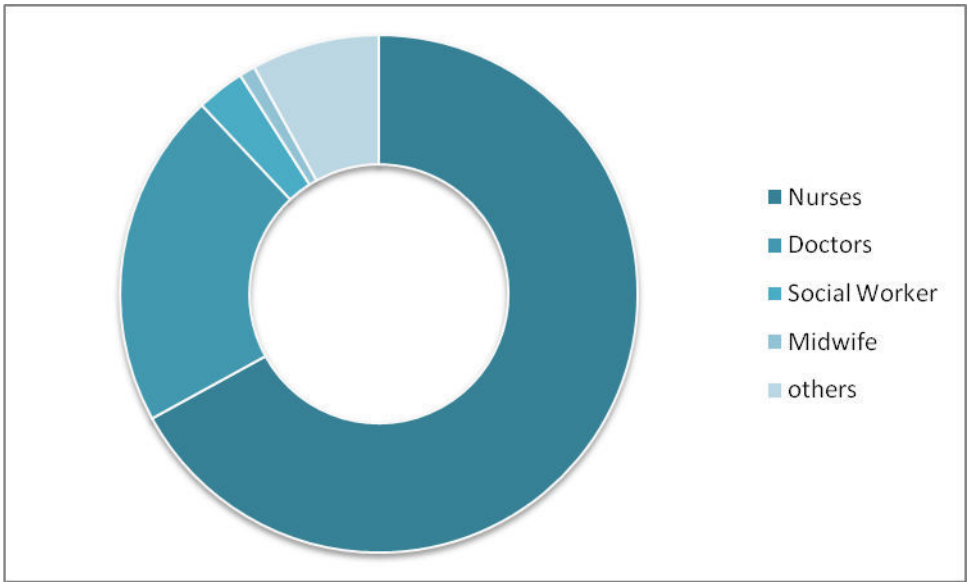


Figure (8) Distribution of the healthcare providers according to their career history

The majority 43 (37%) of the participating healthcare providers hold experience between 11-20 years, 28 (24%) hold 5-10 years of experience, 27 (23%) have less than five years of experience and 18 (16%) hold more than 20 years of experience.

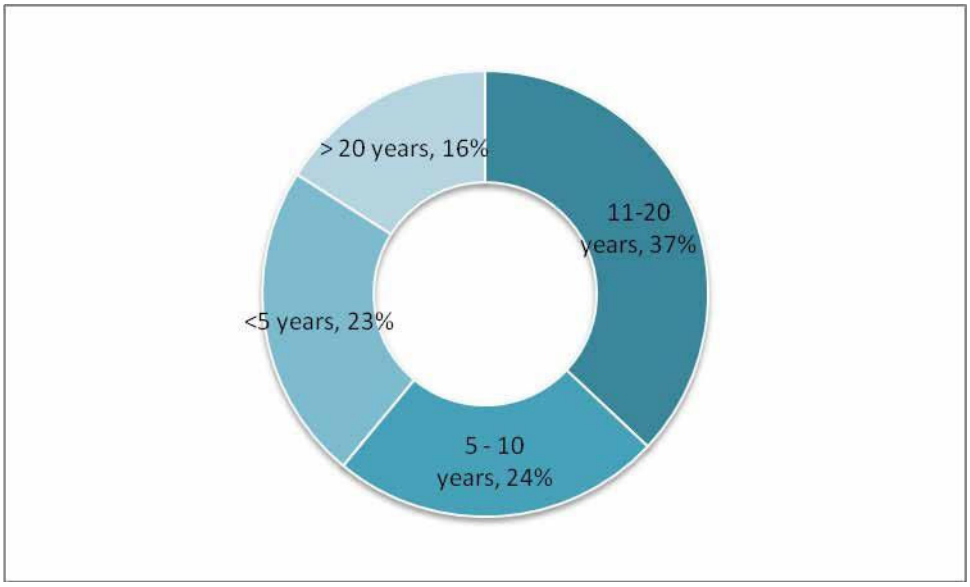


Figure (9) Distribution of the healthcare providers according to years of experience

4.1.8 Previous experience and training in working with suicide patients

Only 17 (14.7%) of the healthcare providers received previous training on suicide and approximately 100 (86%) reported their need for more specialized training to learn how to deal with attempted suicide patients. 55 (44.8%) hold previous experience in working with attempted suicide patients. 66 (56.9%) of these health care providers are currently working with attempted suicide patients.

The majority of the healthcare providers 94 (81.0%) reported seeing less than five patients monthly, and only 17 attended to more than six patients monthly. Two nurses and one doctor reported seeing more than 20 attempted suicide patients monthly.

Table (18) Previous work and training on suicide attempts

Training/ Work with attempted suicide patients		N° (%)
Having previous training about treatment and assessment of suicidal behavior	Yes	17 (14.7%)
	No	99 (85.3%)
	Total	116 (100.0%)
Need training on suicide assessment and treatment	Yes	100 (86.2%)
	No	15 (12/9%)
	Total	155 (99.1%)
Contact with suicidal behaviors in clinical practice		
Have any patients made one or several suicide attempts	Yes	52 (44.8%)
	No	64 (55.2%)
	Total	116 (100%)
Currently work with attempted suicide patients	Yes	66 (56.9%)
	No	50 (43.1%)
	Total	116 (100%)
Number of attempted suicide patients seen monthly	0	3 (2.6%)
	5 and less	94 (81/0%)
	6 to 10	11 (9.5%)
	11 to19	2 (1.7%)
	>20	3 (2.6%)
	Total	113 (100%)
	Missing	3 (2.6%)

Table (19) Distribution of number of monthly visits of attempted suicide patients by specialty

		.00	≤5	6-10	11-19	≥ 20
Specialty	Doctor	0	20	2	0	1
	Social worker	0	3	1	0	0
	Nurse	3	60	6	2	2
	Midwife	0	0	1	0	0
	Other (psychologist, police officer, administrators)	0	8	1	0	0
	Total	3	91	11	2	3

4.1.9 Healthcare providers' practice and intervention Strategies for Suicidal Behaviors

Table 20 shows healthcare providers perceptions of the intervention strategies for suicidal behaviors. Healthcare providers mostly asked attempted suicide patients the following questions:

If patients recently experienced any problem (n=69, 62%), lethal method used for suicide (n=65, 58%), suicidal plan (n=64, 58%), circumstances in which the attempt was carried out (n=64, 57%), refer/advise for psychiatric counseling (n=64, 57%), drug and alcohol habits (n=63, 57%), prescribe medication (n=62, 55%), ask about the two days prior to the suicide attempt (n=63, 57%) and try to understand if there is a non-solved or current mourning process (n=62, 57%).

Healthcare providers provided counseling to family members (n=67, 59%) and conducted interviews with the families (n=63, 57%).

Only half of healthcare providers (n=60, 52%) asked the patients about prior suicide attempts while a third (n=44, 38.3%) reported not asking about prior attempts. 44 (38.9%) assessed depression and (n=45, 40%) did not assess if patients had depression. The majority of them 66 (76%) did not set written "no suicide contracts" with patients.

Table (20) Healthcare providers' practice and Intervention Strategies for Suicidal Behaviors

Intervention Strategy	Not Likely at All		Not very likely		Somewhat likely		Likely		Very likely	
	No	%	No	%	No	%	No	%	No	%
1. I ask about prior suicide attempts	20	17.4	24	20.9	11	9.6	21	`	39	33.9
2. I assess depression	22	19.5	23	20.4	24	21.2	25	22.1	19	16.8
3. I set written no-suicide/suicide prevention contracts	65	57.5	21	18.6	13	11.5	9	8.0	5	4.4
4. I ask questions about problems he/she may be experiencing	14	12.6	11	9.9	17	15.3	18	16.2	51	45.9
5. I ask if he/she wants to die	25	21.9	11	9.7	14	12.3	20	17.5	44	38.6
6. I ask what he/she expected when attempting suicide	26	23.4	13	11.7	20	18.0	24	21.6	28	25.2
7. I use formal instruments to assess suicide risk	50	43.9	24	21.1	9	7.9	23	20.2	8	7.0

8. I engage the family in the process	24	21.2	10	8.8	18	15.9	31	27.4	30	26.5
9. I assess the circumstances in which the attempt was carried out	18	15.9	11	9.7	20	17.7	23	20.4	41	36.3
10. I refer/advise to psychiatric counseling	19	17.0	14	12.5	15	13.4	15	13.4	49	43.8
11. I ask about the lethal means used in the attempt	18	16.1	9	8.0	20	17.9	28	25.0	37	33.0
12. I approach the theme of death	15	13.3	11	9.7	10	8.8	18	15.9	59	52.2
13. I advise a continued care plan	28	24.8	8	7.1	22	19.5	24	21.2	31	27.4
14. I try to understand the meaning of the suicide attempt	23	20.5	11	9.8	17	15.2	21	18.8	40	35.7
15. I give a mobile phone number	20	17.5	13	11.4	21	18.4	25	21.9	35	30.7
16. I refer to/advise on psychological counseling	44	38.9	18	15.9	11	9.7	25	22.1	15	13.3
17. I try to find out at what time the suicide attempt was carried out	21	18.8	11	9.8	21	18.8	22	19.6	37	33.0
18. I assess the hopelessness	23	20.5	13	11.6	20	17.9	24	21.4	32	28.6
19. I provide counseling to	20	17.7	13	11.5	13	11.5	29	25.7	38	33.6

the family										
20. I try to understand the motives that trigger the attempt	31	27.7	16	14.3	22	19.6	23	20.5	20	17.9
21. I ask about the alcohol and drug consumption and abuse	18	16.5	13	11.9	15	13.8	25	22.9	38	34.9
22. I explore the existence of an elaborate suicide plan	19	17.3	12	10.9	15	13.6	27	24.5	37	33.6
23. I use specific intervention protocols	20	18.0	10	9.0	18	16.2	19	17.1	44	39.6
24. I assess the risk factors	23	20.9	14	12.7	19	17.3	19	17.3	35	31.8
25. I carried out a personality evaluation	31	28.4	15	13.8	23	21.1	27	24.8	13	11.9
26. I ask about the family suicidal background	29	26.1	8	7.2	26	23.4	23	20.7	25	22.5
27. I ask what reasons he/she has for living and dying	31	28.7	10	9.3	26	24.1	20	18.5	21	19.4
28. I refer to a colleague who is better prepared in this area	31	27.7	14	12.5	14	12.5	21	18.8	32	28.6
29. I suggest using the internet to communicate	26	23.9	8	7.3	16	14.7	25	22.9	34	31.2
30. I prescribe medication/I refer to	21	18.8	15	13.4	14	12.5	34	30.4	28	25.0

someone who can prescribe medication										
31. I refer to/advise the general practitioner	35	31.3	9	8.0	15	13.4	17	15.2	36	32.1
32. I try to have the patient hospitalized	45	41.3	15	13.8	18	16.5	16	14.7	15	13.8
33. I use specific suicidal behavior assessment instruments	18	16.4	15	13.6	22	20.0	17	15.5	38	34.5
34. I ask about the two days prior to the suicide attempt	21	19.1	12	10.9	14	12.7	29	26.4	34	30.9
35. I ask how he/she feels about having survived	24	21.6	8	7.2	24	21.6	25	22.5	30	27.0
36. I try to understand if there is a non-solved or current mourning process	20	18.5	7	6.5	19	17.6	30	27.8	32	29.6
37. I conduct a family interview	23	20.9	8	7.3	16	14.5	28	25.5	35	31.8
38. I try to understand how the patient usually solves his/her problems.	18	16.4	10	9.1	18	16.4	26	23.6	38	34.5
39. I refer to psychotherapy	20	17.9	8	7.1	21	18.8	18	16.1	45	40.2
Total All items	4	3.4	20	17.2	20	17.2	40	34.5	30	25.9

60.4% of healthcare providers possess high level of practice, 17% hold moderate level and 20.7% possess low level of practice (Table 21).

Table (21) Healthcare providers' practice level

		Frequency	Percent
Healthcare providers' practice	Low	24	20.7
	Moderate	20	17.2
	High	70	60.4
	Total	114	98.3
Missing		2	1.7
Total		116	100.0

4.1.10 Association between healthcare providers' experience working with suicide behaviors and the need for further training

Table 22 shows that 29 (27.1%) of the healthcare providers with experience in working with suicide patients reported that they needed training on assessment and treatment of suicide. Four (3.74%) of them said they did not need any training. 68 (63.55%) of the healthcare providers who do not have any experience in working with suicide patients reported their need for specialized training. Only six (5.61%) of the healthcare providers who had not worked with suicide patients reported that they did not need any training. In sum, 97 healthcare providers expressed their interest in specialized training on the assessment and treatment of suicide/ attempted suicide cases.

Table (22) Relationship between having experience in working with suicide patients and the need for training

		Having experience with suicide patients	
		Yes	No
Need training	Yes	29	68
	No	4	6
Total		33	74

Furthermore, the association between having experience in working with suicide patients and the number of monthly visits of attempted suicide patients was examined. The analysis shows that 60 (55.5%) of the healthcare providers that work with less than five patients monthly had no experience in working with the attempted suicide patients. 7 (6.4%) of the healthcare providers that worked with 6-10 patients monthly had no experience in how to work with them (Table 23).

Table (23) Relationship between having experience in working with suicide patients and the number of monthly visits of attempted suicide patients

Monthly Visits	Experience in working with suicide patients	
	Yes	No
.00	0	3
≥5	29	60
6-10	4	7
11-19	0	2
≥20	2	1

In order to find the association between hospitals and healthcare provider opinions regarding intervention strategies with attempted suicide patients, ANOVA (Analysis of Variances) was performed and found a significant association between them (P.000).

The Bethlehem Psychiatric Hospital had higher practice level compared to other hospitals, followed by the Beit Jala Hospital, and Yatta while the lowest practice was found in the Jericho Hospital (see table 24 below).

Table (24) Healthcare providers' practice level differences by hospital

Hospital	Low	High	P value
Bethlehem	3	36	.000
Yatta	5	19	
Jericho	10	16	
Beit Jala	6	19	

4.2 Results of Qualitative Study

4.2.1 Estimated number of suicide attempts in Palestine

When reporting on prevalence of suicide attempts, for the purpose of this study, data refers to survey-based, self-reported data and interviews with the participants.

Respondents in individual interviews and focus groups explained that statistics on the number of suicide attempts were unreliable and difficult to obtain. A number of respondents mentioned that they received statistics on attempted and completed suicide from the police department. Therefore, in many cases they were incomplete and not properly reported by the police or the Ministry of Health. Some parties attributed this to inaccurate reporting, while others related it to sociocultural factors such as stereotyping, protecting family reputation and avoiding stigma. A number of participants mentioned that some attempted suicide cases were reported as regular accidents such as falling down or injury. However, others mentioned that some cases of suicide were misclassified as attempted suicide or incorrectly reported to be attempted suicide. For example, some cases were reported as attempted suicide and when rechecked by medical staff it was discovered that they were medical illnesses.

"I checked the list of the registered attempted suicides and found that eight cases from the list were medical cases such as cancer or kidney failure. I think the electronic documentation system has some problems. It must be rechecked and programmed with a uniform reporting procedure"(Key informant, psychiatry 2).

"Once, a family begged me to abstain from reporting their son's attempted suicide, they were embarrassed and ashamed so I registered it as an accident" (Focus group 3).

One of the interviewed key informants that had access to statistics on suicide in the Ministry of Health reported that the number of suicide cases is as follows:

2014: Completed & attempted suicide cases = 600

2016: Completed & attempted suicide cases = 447

2017: Completed 10 males and 4 females and the attempted suicide cases were 506

2018: Competed suicide 8 males and 3 females and the attempted cases were 368

(Key informant- psychiatrist 1)

She further mentioned that she receives 50 cases of attempted suicide patients every year. This may indicate that statistics on attempted suicide are difficult to collect, and the available statistics are inaccurate and unreliable. She added that females made more attempts than males and individuals of younger age attempted suicide more than the older individuals. Some specified that the highest age of attempted and completed suicide was from 18-25 and the lowest was among the 45 and above age group.

Another key informant noted that his international institution (U.N.R.W.A) provided services for attempted suicide cases registered in all Jerusalem, Jericho and Ramallah cities as per the following table:

U.N.R.W.A Cases

2013: 19 cases

2014: 32 cases

2017: first 6 months, 13 cases

2018: first 6 months, 12 cases

(Key informant, professional 1)

He also mentioned that Al Wad Community Rehabilitation organizations in 2011 documented 10 completed suicide and 363 attempted suicide cases. They also reported that females attempted suicide more than males; however, men died from suicide more than women. As reported by the same participant, the Hebron Governorate had the highest number of completed suicide cases followed by Nablus. The lowest number of cases were reported in cities of Bethlehem and Qalqilia.

In focus group discussions, healthcare providers reported various numbers of attempted suicide cases that differed from one professional to another and from one district to another. For example, physicians in one of the emergency departments reported working with 250 cases in the last five years. Others from the same department noted working with 200 cases, while nurses in the same departments reported 65 cases.

"In the last five years, I worked with many, around 250 cases and I saw less than five cases monthly" (Focus group discussion3).

"I worked with 65 cases in the last five years and only saw less than five cases monthly" (Focus group discussion3).

"Statistics are not reliable at all, but we have from 70-150 cases a year" (Key informant-Professional 4).

"At the Police Department, we documented 119 attempted cases and 11 completed suicides in 2017" (Police officer-2).

4.2.2 Factors that motivate attempting-suicide

This study explored the risk factors and triggers of suicide attempts. The analysis shows that attempted suicide in Palestine is caused by multiple rather than one single factor. It found that all cases of attempted suicide occurred by dynamic and complex interaction and interplay of more than one factor. Five categories emerged from the analysis of the study: economic factors, individual factors, familial factors, institutional and social factors (see figure 10 and table 23).

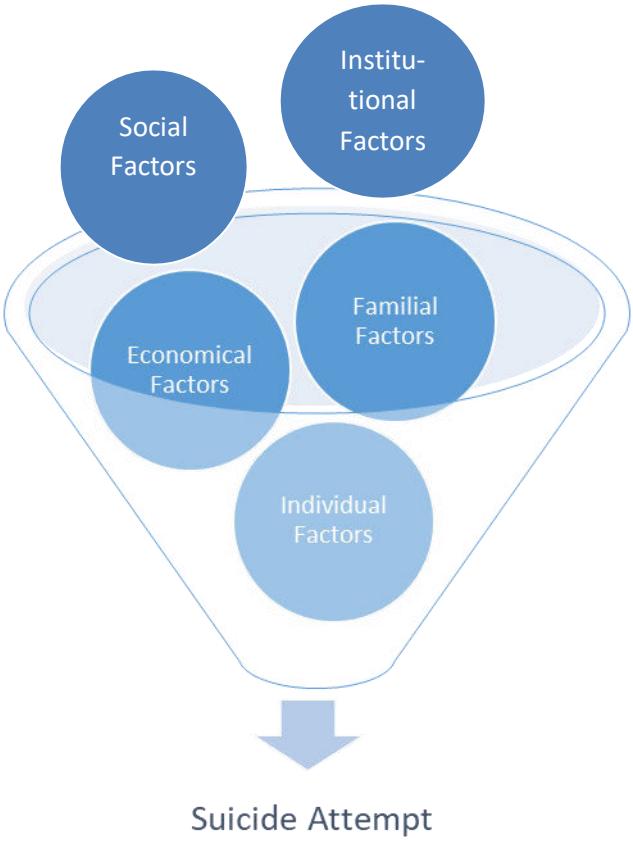


Figure (10) Model of factors that contribute to suicide attempt

Table (25) Key themes and sub-themes of factors that led to suicide and attempted suicide

Themes	Sub-themes
Economic factor	Poverty and unemployment
Individual factors	Mental illness Lacking coping mechanisms to face stressors Trauma and loss are triggering events Having previous attempts Emotional deprivation and romantic relationship breakups Drug addiction Academic difficulties

	Feeling that life is not worth it Punishment and revenge
Familial factors	Poor relationships between family members Negligence
Institutional/ organizational causes	Lacking professional and follow-up support
Social factors	Rejection and isolation from social activities Discrimination against women Supernatural or magical power [superstition]

4.2.2.1 Economic factors

Poverty and unemployment

Most of the participants in this study mentioned that financial hardship and unemployment played major roles in motivating suicide. These factors affected the individuals' ability to meet their personal and family needs and consequently exacerbated their feeling of inferiority and sense of failure. This was highlighted by one of the interviewed fathers and also by service providers:

"The main cause was poverty. He was unemployed and had needs to smoke and to buy things. He lost his job and after that committed suicide. He felt devastated and inferior compared to his friends" (Service providers 3).

"She felt inferior and ashamed as her husband was stingy and never bought anything for her. Her sister in–law bought nice dresses and when she saw this, she felt jealous. She was poor and tried to kill herself to leave this miserable life" (Father 1).

"Economic causes such as poverty and unemployment played a central role in causing both suicide and attempted suicide" (Focus group 5).

4.2.2.2 Individual factors

Mental illness

Health professionals and some family members considered depression and other mental illnesses such as personality disorders to be the main causes of attempted suicide. From their point of view, 90% of attempted suicide cases in Palestine occurred in mentally ill patients and patients that had emotional disturbances, delusion or hallucinations.

"From my extensive experiences in working with attempted suicide cases, 90% of them suffer from mental illness or are emotionally disturbed clients" (Psychiatrist 3).

"She had depression and directly after that her first attempt occurred. I could not understand why she did this to herself" (Mother 2).

"Mental illness, delusions and hallucinations causes the suicide" (Focus group 4).

"Personality disorders, impulsiveness and depression such as borderline personality were main causes" (Focus group 2).

Lacking coping mechanisms to face stressors

The inability of the individuals to face life stressors and finding efficient coping mechanisms were reported by most of the key informants and service providers to be factors that triggered the suicide attempts. Accumulation of stressors, their intensity, extension and prolonged duration on one's life compromised the clients' ability to resume their previous emotional stability and undermined their coping abilities.

"Different causes led to attempted suicide such as having limited capabilities in how to deal with their stressors" (Key informant- professional 1).

"Ongoing life stressors such as failing in exams, lacking job opportunities affected their ability to cope. Some had limited coping mechanisms in how to counteract these stressors and started to feel inferior and incompetent, so the attempt was their only way to avoid these stressors" (Key Informant-Psychiatrist 3).

"Having a lot of stressors led to suicide in our society" (Focus group 4).

Trauma and loss are triggering events

Some key informants and health professionals mentioned that attempted suicide was sometimes caused by the loss of a close family member or a friend. They elaborated further on the relationship between remembering traumatic events and the triggering of the suicide attempt. From the point of view of one of the psychiatrists interviewed, the memory of the traumatic event and its painful experience triggered the attempt. This is observed in the following quote:

"My point of view here is that the attempt is their way to avoid remembering the event. On the date of the events, the painful experience intensifies and they had intrusive thoughts about the events, their pain and how they reacted; therefore, they felt that suicide attempt is the only way to forget the pain. Additionally, some of the clients attempted suicide after losing their loved one" (Key informant, Psychiatrist 3).

Having previous attempts

Some participants mentioned that patients that had previously attempted suicide and/or had a family member that died by suicide were at risk for attempting suicide.

"Reasons varied; for example, having previous unsuccessful attempts or when one of the family members committed suicide" (Key Informant, Psychiatrist 3).

Emotional deprivation and romantic relationship breakups

Service providers reported that attempted suicide among adolescents and young adults was caused by feeling lack of love, romantic relationship breakups and emotional deprivation. One of the interviewed fathers, speaking of his daughter, attributed the attempted suicide to the lack of her husband's love and respect.

"Many suicide attempts among adolescent and young adults happened because of emotional deprivation and after the break-up of a romantic relationship. They directly attempted suicide. I remembered a girl who attempted suicide after a breakup of a love relation"(Focus group 4).

"She was 16 when she got married and her husband was tough. He could not give her love. He did not show any kindness or care" (Father 1).

"She got married and went to the U.S., but her husband did not treat her well. She went through depression and after that committed suicide because she felt lonely and lacked love" (Mother 2).

Drug addiction

Drug addiction was frequently reported by the interviewed professionals and service providers as a risk factor to suicide attempts. Some of them related this to the patient's inability to recover from addiction which increased the patients' feeling of frustration and failure.

"The main cause was drug addiction" (Key Informant, police officer).

"Drug addiction led to attempted suicide. Some of them could not stop the addiction. This made them depressed, frustrated and feeling as a failure"(Key informant, psychiatrist 1).

Academic difficulties

The data from this study shows that some of the attempted suicide cases were caused by academic failure or deterioration, particularly among adolescents. This intensified their feeling of failure and disability. In addition, Palestinian society is highly focused on academic achievement and places heavy pressure upon student to please their close- knit society. Adolescents link their self-identity to academic success; therefore, some of them attempted suicide due to poor sense of self-worth.

"Some of the causes were academic failure and shortcomings. Families and the public considered education as a very important issue and when their sons and daughters failed, they punished and fought with them. As a consequent, adolescents could not face this and they felt incompetent and just a mere failure"(Key informant, professional 4).

"Adolescents linked their self-identity to success in academics and when failed, they think of suicide"(Key informant, professional 3).

Feeling that life is worthless

Participants mentioned that people thought and attempted suicide when they felt that their life was worthless. The decision to take their own life was hard but surrendering to the thought that nothing new will happen, or when unable to make any changes in their life, they were pushed to attempt suicide to put an end to their life. Some mentioned that attempted suicide patients felt helpless and uselessness as they lack social activities and were unable to engage themselves in any activity (Key informant, psychiatrist 2).

"When they felt that life is not worthy of living, this made them unable to see pleasure in life and attempted suicide" (Focus group 3).

"She lives here and feels that there is nothing worth fighting for; she left her husband and her daughter behind to return to Palestine. She could not see her daughter for many years. This might lead to many repeated suicide attempts. I tried hard to support her, but she stopped fighting" (Mother 2).

"Loss can lead to attempted suicide. Also, individuals felt helpless and useless because they felt isolated and unable to participate in any social activities" (Key informant-professional 2).

Punishment and Revenge

Some of the interviewed key informants, family members, and service providers mentioned that suicide is an attempt to punish others for bad treatment. When individuals feel angry at others or feel neglected by them, they attempt suicide as a means of revenge.

"One of the causes was anger at others; they wanted to punish their families and friends for being harsh with them and for their carelessness and wrong-doing. It could be retribution" (Key informant, professional 1).

"She tried to kill herself when we refused to marry her to that man. She was punishing us" (Family member, sister 2).

4.2.2.3 Familial factors

Poor relationships between family members

Service providers and key informants reported that conflict inside families and poor relationships between family members leads to suicide attempts**.** Attempted suicide clients feel devalued and misunderstood by their parents or other family members**.** Others attempted suicide due to divorce inside the family and or as a result of females and other family members being exposed to domestic violence. These issues are highlighted in the following excerpts:

"Relationships with family members affected individuals and sometimes caused suicide. These conflicts raise emotional problems for the patients and they felt misunderstood and sometimes devalued" (Focus group 4).

"Her husband always hit her. She was abused for many years. She jumped from the building to rest as she told me at that time. She never told me about her husband abuse and when she did, I solved it" (Father 1).

"Family relationships are important, many cases of attempted suicide are a result of conflict with family and society" (Service provider, focus group 3).

"Conflict inside families such as divorce and abuse of family members and particularly females." (Key informant, Police officer).

"I am concerned about her and that she may repeat the attempt again. She had problems with us since we refused to marry her to a man she loved" (Family member, Mother 3).

Negligence

Living in families that neglect its members' feelings and needs increases the risk of attempted suicide as reported by interviewed service providers in one of the hospitals.

"Problems inside family and neglect of the children are causes of the attempts in our society. The family can be supportive, but when children live in conflict or negligence, they try to kill themselves as an escape from the on-going conflict." (Key informant, professional 1)

"Dysfunctional families that neglect the patients. For example, some attempted patients lived with a step-mother and negligence from the part of the family" (Key informant, professional 3).

4.2.2.4 Institutional/organizational factors

Lacking professional and follow-up care/support

One of the interviewed healthcare providers stressed the significance of receiving continuous psychological support and follow-up care in order to prevent suicide. She further mentioned that some of the attempted suicide cases dropped out from treatment or even did not follow the health professionals advice to see a doctor after being discharged from the hospital. One of the psychiatrists noted that attempted suicide clients were not willing to seek help from the psychiatrist or to even to speak with them. This seems to affect preventive measures and leads to attempting suicide.

"Receiving professional help is necessary to avoid re-attempting suicide. Patients need care and follow-up after discharge. Some of the patients re-committed suicide after being discharged because they did not receive the proper care" (Key informant, mental health professional 1).

"Most of the time, they avoid us and drop out from receiving our care" (Key Informant, psychiatrist 3).

4.2.2.5 Social factors

Rejection and isolation from social activities

Some participants state that social stigma and societal rejection exacerbated attempted suicide clients' feeling of inferiority and made them repeat the suicide attempts several times. Some professionals linked the attempts to social isolation and rising depression. Another category of suicide attempters includes sexual abuse victims.

"She wanted to work as a volunteer in one of the institutions and when they learned that she had attempted suicide they refused to hire her. This was devastating for her and she felt rejected. She felt she was nothing. After that she tried to kill herself by jumping from the balcony" (Mother 2).

"Rejecting individuals who were sexually abused or were victims of scandals as a result of sexual acts by the society and their social network led to suicide" (Key Informant, psychiatrist 1).

Discrimination against women and early marriage

Some of the interviewed professionals mentioned that discrimination against women was one of the causes that led attempting suicide, particularly traditional families that forced women to marry at an early age and treated them differently compared to their brothers and male relatives.

"Some women were victims of discrimination in their families and this led to suicide" (Key informant, police officer).

"Causes may also be cultural as marrying girls at an early age and living in traditional and conservative families that discriminated against them" (Key informants, Psychiatrist 2).

Supernatural or magical power

Some family members believed that witchcraft and magical power caused attempted suicide. They reported that their son was well and supernatural causes is the only explanation as to what was happened to him. Interviewed professionals mentioned that many of the families believe in the supernatural causes of suicide which ultimately affected them seeking professional help. Families preferred to ask for help from swindlers and wizards instead of psychiatrists or mental health professionals.

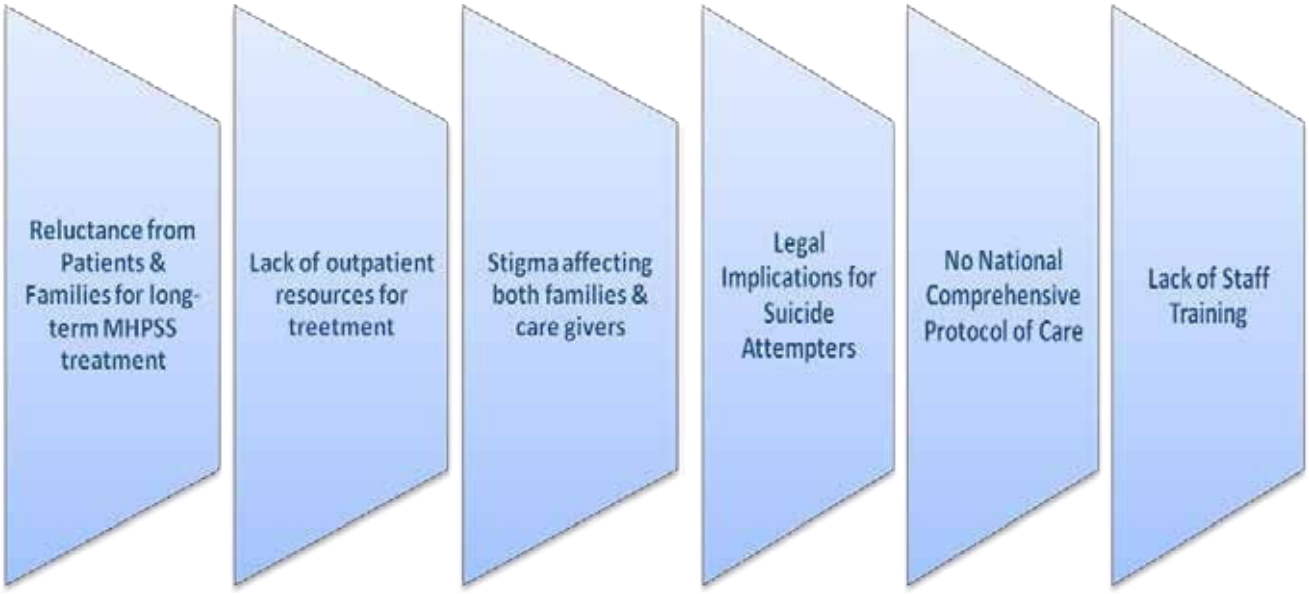
"He had no problems; he was spoiled and well cared for from all the family. He attempted suicide because of supernatural causes such as witchcraft. He was outside home late in the night and after that he tried to kill himself for no reason from our part. I am sure this was the cause" (Mother 1).

"Families preferred to relate their sons' suicide attempt to witchcraft and therefore they took their sons and daughters to swindlers and wizards instead of us" (Key informants, psychiatrists 1).

4.2.3 Treatment protocols and challenges

Participants mentioned various challenges in implementing protocols for treating suicidal patients. The following model shows the sub-themes of treatment protocols and challenge themes.

Figure (11) Treatment challenges and protocols



Lack of well-trained professionals

Most of the participants mentioned that working with attempted-suicide patients requires well-trained and equipped mental health professionals. The complexity of working with attempted-suicide cases and their families requires highly qualified professionals; however, hospitals do not have enough mental health professionals or skilled staff.

"In Palestine, we have a limited number of well-trained professionals. We need forensic psychiatrists that have knowledge in how to work with and deal with these cases" (Key informant, professional 1).

"We need specialized training for our staff in how to assess risk, provide counseling and emergency crisis intervention measures" (Focus group 3 and 1).

Lack of national and comprehensive protocol to assess and treat patients

Participants reported that treatment strategies for attempted suicide clients in hospitals and primary health clinics is inefficient due to lack of national protocols to guide professionals. However, they implemented general interventions when dealing with attempted-suicide cases directed at patients and their families. Some psychiatrists made concerted efforts to be alert to risky behavior and to educate families and other professionals in their institution about these risks. Some key informants noted that they used protocols when dealing with attempted suicide cases that focused on assessing risks. However, the interviews with service providers showed that most of them were unaware of these protocols while interviewed psychiatrists on the other hand, reported having clear protocols to guide their work. This contradicts their reporting in quantitative data as 72.9% of the services providers claimed that they followed specific intervention protocols (see page 65).

"To say the truth, our teams know general measures in how to work with attempted suicide patients. But we do not have a general or national protocol on how to work with them. We need this guidance to ensure effectiveness. We are aware of risky behaviors and my role is to raise awareness of staff and family members about them" (Key informant, psychiatrist 5).

"We have protocols that specify how, when and what to assess. We follow them when assessing and treating patients" (Key informants, psychiatrist 2).

"To be honest we have to say we have no clear protocols in assessing the risk factors of suicidal patients" (Focus group 3 and 4).

"We have no protocol, our treatment is informal meaning it depends on the psychiatrist's experience, relationship with the patients and expertise" (Focus group 2 and key informants).

One participant from an international institution mentioned that they usually use a specific protocol that has a sequential series which starts with evaluating the case, then looking for supporting family members. After that they refer the patient to a psychiatrist or a mental health professional. In some occasions, when they cannot find any support system, they refer the patient to social affairs. They usually provide individual and family therapy when needed.

"Our organization has protocol. We assess the risk for suicide by asking the patient if he/she will think of committing suicide in the future; then we refer him/her to the doctor and try to find a family member to support them. When we fail to find any, we refer him/her to the shelter. If we notice that he/she needs counseling, our staff provides individual or family therapy to him/her and to his/her family" (Key informant 3).

Some service providers mentioned their inability to distinguish self-harm from suicide and attempted suicide. The confusion between the terms reflects their inability to assess risk of suicide or to provide proper treatments or referral.

"We need more knowledge to distinguish self-harm from suicide attempts" (Focus group 1).

"Healthcare providers in the general hospitals are unaware of risk assessment or management. They cannot assess future risk of suicide because their training is focused on medical treatment" (Key informant, psychiatrist 2).

Handling suicide cases when the emergency occurs is not systematic

Regarding assessment of suicide risks, service providers mentioned different strategies that vary from one hospital to another depending on their own judgment, experiences, observation and available family information. When the attempted suicide patient is admitted to the emergency department, they are treated as offenders, which means direct reporting to the police takes place. Participants explained that they believed suicide was outlawed and henceforth should be referred to the police. Later, the police refer the file to the Ministry of Social Development and to the Public Prosecution Office,

which arbitrates the criminality of the offense and ascertains if the patient should be legally prosecuted. Then, the patient is referred to a community mental health clinic or psychiatric hospital. In the emergency departments, patients are assessed for risk, and are provided with the necessary medical care such as medication. Management strategies in government hospitals vary according to staff experience. In some cases, the staff fails to manage the case because of inadequate experience, inaccurate information and stereotypes. This is exemplified in the following excerpts from interviewed service providers:

"As we told you before, we have no clear strategies and we depend mainly on our experience. When the attempted suicide patient comes in, we administer medication or sometimes contact the Toxic and Poisonous Substance Unit for advice on the antidote to use in case of poisoning. Then, we assess the risk for suicide and refer the patient to community mental health units or the psychiatric hospital" (Focus group 3).

"At first, we report the case to the police, provide medical care and refer him to a mental health hospital or mental health clinic. Our personal experience and individual efforts guide us" (Focus group 4).

"When the attempted suicide cases are admitted to emergency units, the health team informs the police, then we refer them to the Ministry of Social Affairs and the Prosecution Office, which decides on their criminal prosecution" (Police Officer 1).

Refusal of care of adolescents by their families

Participants identified family refusal and resistance as a major impediment to applying the existing treatment protocol to minor (under-age) patients. Another participant explained that adolescents themselves sometimes drop out of treatment for fear of shaming their family and concern about loss of privacy.

"Families play a role in preventing us from helping the adolescents that attempt suicide. We try to engage them in the intervention with their sons and daughters, but they *show*

resistance to our care. Furthermore, adolescents also do not take our advice and reject professional support" (Key informant, psychiatrist 5).

Lack of specialized hospitals for suicide cases

One of the problems that undermine proper care and access to health and emergency care for attempted suicide patients is the lack of specialized hospitals that can work effectively with these patients. For some interviewed professionals, concern about confidentiality and feeling shame and facing embarrassment made families and patients prefer private hospitals more than governmental hospitals. Therefore, some of the attempted suicide patients were treated in their homes and did not seek any help from mental health professionals. Additionally, service providers mentioned that private mental health centers and facilities that were specialized in dealing with attempted suicide cases are very limited and have a limited number of professionals which in turn affects referral procedures for patients that prefer the private sector.

Suicide patients expressed a preference for specialized hospitals as they can more effectively care for attempted suicide cases; in addition, they do not enjoy sufficient privacy at general hospital emergency units. Some of the professional staff interviewed expressed their concern about respecting confidentiality, particularly in a society that shames families and stigmatizes patients. Because of this situation, some suicide patients were home nursed and did not seek any professional psychiatric care. On another note, professionals reported under-qualified and under-equipped psychiatric hospitals and clinics that cannot provide effective treatment.

"Many prefer private care more than government hospital care. They fear for their reputation and feel embarrassed and ashamed. We do not have specialized private hospitals for adolescents and children, this affects access to care (Key informant, psychiatrist 5).

"In our city, we did not have specialized psychiatric clinics and some patients prefer private care; we feel unable to help them" (Service provider, focus group 3).

Importance of family and social support for full recovery

Participants mentioned that family emotional support plays a critical role in the recovery and prevention of suicide attempts. Social networks can also serve as a venue of support for attempted suicide patients to help them reintegrate in their community and thus prevent further attempts. Participants stressed the role of family and social support to help patients find meaning to their life and consequently reduce the occurrence of repeated attempts.

"Many measures are useful for prevention and recovery such as encouraging reintegration in the society, increasing participation in social activities and family and friends' emotional support. All these paths can help patients regain a normal life" (Key informant, psychiatrist 2).

Professional help undermined by taboos, stigma and shame

Family members and service providers mentioned that stigmatization and family concerns about possible unamiability of their female daughters restrains patient access to proper care.

"We do not want to send her to a psychiatrist. People will say she is crazy, and no one will marry her" (Family member, mother 1).

"People are ashamed to seek help. One of the main challenges in our work is stigma" (Key Informant, professional 3).

4.2.4 Documentation and Referral of Attempted Cases

This section displays the main difficulties faced by professional in documenting suicidal cases. Figure 12 shows the sub-themes.

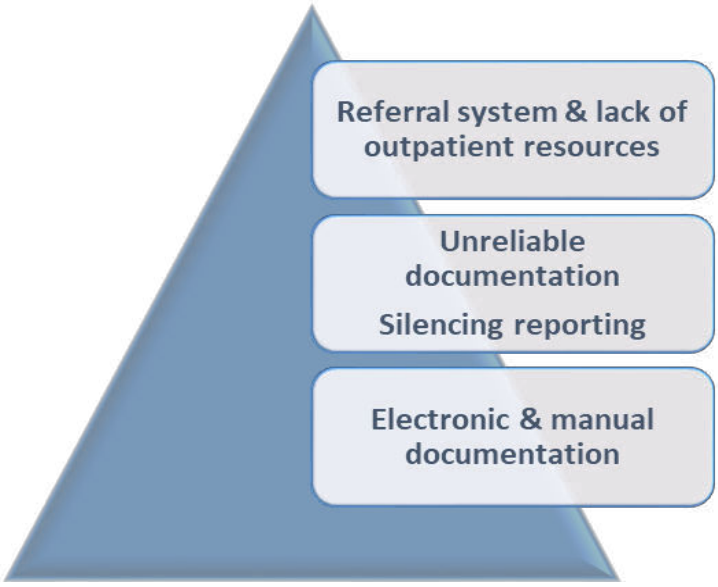


Figure (12) Documentation and referral of attempted cases

Silencing suicide and unreliable documentation

Documentation of attempted suicide cases is automated in three government hospitals, with the exception of the Bethlehem Psychiatric Hospital, which continues to use paper documentation. Most of the participants reported their concern about the process and the reliability of documentation of attempted cases in these hospitals. It was mentioned that some cases were documented as accidents or even unregistered in emergency rooms. They attributed this silence regarding suicide cases to social norms and stigma as well as fear of the lack of confidentiality. Service providers also fear for their lives and need protection. They mentioned that some families forced them to change the diagnosis from attempted suicide to overdose or drug abuse. Hospitals operate in a

conservative culture, which should be taken into consideration when planning documentation and assessment procedures for attempted suicide.

"We could not document cases properly because of the public and the families' concern about their reputation" (Key informant, -police officer).
"Look, we do not have proper documentation or systematic referral services" (Key informant, professional 1).

"We could not report some of the cases because of fear for our lives. We need protection and particularly when working in remote or in closed-minded and conservative societies. Once, we changed the diagnosis from ingested drugs to taking drugs by mistake. The family forced us to do this" (Service provider, focus group 3)

"Protection of the staff is important in this area. Families complicated our work and interfered and prevented us from reporting the suicide cases" (Focus group 4).

Documenting cases electronically and manually

Participants mentioned that in their institutions, documentation was conducted both electronically and manually. They observe privacy and confidentiality.
"We reported every case manually and electronically. It is password-protected, and paper files are kept in locked cabinets" (Key informant, professional 3).

Referral system is not always working effectively

The referral system is not systematic, which limits the patients' accessibility to specialized services. Participants claimed that there are no clear guidelines on how, where and when to refer attempted suicide patients, despite the existence of the National Mental Health Referral Guidelines. Additionally, service providers reported that patients did not want to see a psychiatrist or mental health professional after discharge. Interviewed family members mentioned that economic hardship prevented their relatives from continuing follow-up treatment. One of the interviewed family members

mentioned that he preferred to take his relative to a professional in another city over concern for confidentiality. Lack of proper and efficient free of charge services that is provided by mental health professionals in the government institutions made them unwilling to send their relatives or to make a commitment to continue a treatment plan.

"We did not have clear referral strategies. These strategies should be clear in how and where to send patients. We depend on our judgment for follow-up, which is sometimes ineffective. Some patients were concerned about confidentiality and therefore did not agree to see any professional after their release from the hospital" (Service provider, focus group 4).

"I usually bring my daughter here because I do not want people to interfere or find out about her case. My economic situation is o.k. but I cannot afford full doctor's fees; sometimes, we simply cannot take her see the doctor" (Father 1).

From the service providers' point of view, the aim of the referral is to facilitate patient access to mental healthcare.

"The referral procedures enable us to facilitate attempted suicide patient access to mental health facilities (Focus group 4).

4.2.5 Recommendations for improvement of the quality of provided care

Findings of the study shows that service providers, family members and key informants suggested different recommendations as to how to help attempted suicide patients. Professionals view a possibility to treat attempted suicide cases. They detailed the procedures and measures that can help patients refit in their community. The majority suggested that networking with different professionals and institutions is necessary to improve the quality of care. All stakeholders must cooperate for treatment and prevention measures. Figure 13 presents their suggestions to improve the quality of care offered to attempted suicide patients.

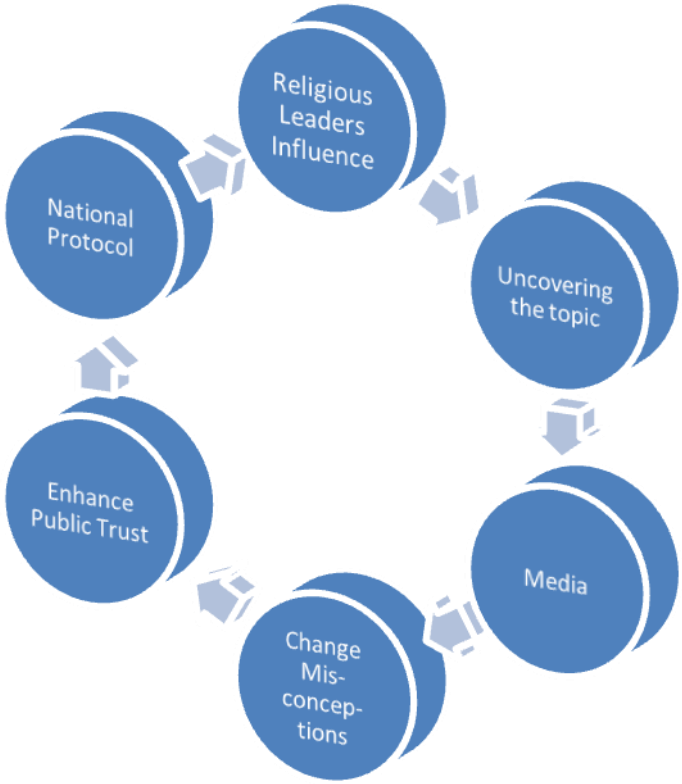


Figure 13: Recommendations for help

Media as a tool to change people's misperception of suicide

Some of the interviewed professionals believe that talking about suicide helps people to become more intrigued about learning about the topic, as it also helps spread awareness. Therefore, they suggest using the media to change public misconceptions about suicide. Changing misconceptions will enable family members and friends to detect suicide ideation and prevent the attempt.

"Using media can help in changing people's attitudes toward suicide" (Key informant, psychiatry 2).

Role of religious leaders

Participants proposed that religious leaders take the lead in de-shaming suicide rather than spreading the idea that it is illicit. Respondents underlined the fact that such ideas deter patients from seeking the help of relatives and friends in the early stage. They suggest including religious leaders in treatment and prevention strategies to combat suicide.

"Religious leaders sometimes affected our job and considered suicide as a sin. They should be included in our work to change people's attitudes towards suicide. They should stop criminalizing attempted suicide and stop talking about them. This will encourage patients with suicidal thoughts to seek help" (Key informant, psychiatry 2).

Changing professional misconception about suicide

Some participants mentioned that working on suicide projects faces opposition from some of the healthcare providers and policy makers. They added that some policy- makers view talking about suicide as helping to spread it. Some of them even rejected the idea of this study claiming that people in Palestine will not think of killing themselves. Some professionals are judgmental about attempted suicide patients, who consequently lose their trust in therapists and drop out of treatment protocol.

"We have problems with professionals who think that public talk about suicide makes it attractive. This very mindset complicated our work. Some are judgmental and may hurt patients and deter them from seeking mental healthcare out of stigma" (Key informant, psychiatry 2)

Uncovering the topic and finding support system

The Palestinian context obstructs efforts to combat suicide. Professional respondents called for abolishing the taboo and addressing suicide publicly to mobilize the whole community to combat this issue.

"First step starts by talking to melt the ice, to make people understand the situation of attempted suicide patients. Without understanding, they cannot provide support" (Key informant, professional 3).

Centralizing provided care, documentation and referral system

Some of the interviews with service providers reported their needs for a centralized system for documentation and referral of attempted suicide cases which from their point of view will help in receiving appropriate mental health counseling. They further added the need to assign a focal point (mental health specialist) in each hospital to assess attempted suicide patients' risk. These mental health professionals should be equipped with skills that can build trust and inspire hope among patients.

Some of the service providers revealed their need for a centralized documentation and referral system to direct patients to the most adequate psychiatric counseling.

"One of the recommendations is to have a centralized referral system in governmental hospitals. I believe this will help in providing efficient intervention strategies and counseling for attempted suicide patients. There is a need for a focal point professional that has specialization in mental health in each hospital and can deal with patients. Professionals should have the skills to deal with patients and building trust" (Focus group 2).

Enhancing public trust

Respondents recommended several ways to improve public trust in professional care providers. They noticed that poor communication undermined patients' and families' trust in care providers. Ineffective communication is combined with care providers' support of social norms and stereotypes. Participants underscored the necessity to train care providers on proper communication, unbiasedness and strict professional intervention without any value judgments or neglect. They need to be calmer and more

empathetic and treat patients with respect. As such, they can gain their trust and deliver more effective treatment.

"Healthcare providers at emergency departments should be highly qualified because they come into direct contact with attempted suicide patients. Governmental hospitals are reputed as judgmental and stereotype patients, which undermines public trust in their services. My suggestion is to build their communication skills, to be more empathetic and understanding. They have to be self-contained, calm and serve as a role model to patients and their families. We are struggling with them because suicide is a taboo topic so, if we gain their trust, we will improve their compliance with our intervention" (Key informant, -psychiatrist 2).

"Improving the general environment in governmental hospitals is necessary. Improving communication skills of the team will have an impact on patient satisfaction and quality of care" (Key informant, professional 2).

Chapter Five: Discussion and Recommendations

5.1 Discussion of results

5.1.1 Socioeconomic characteristics of attempted suicide patients

This study found that the majority of suicide attempters were females. Suicide attempters of both genders are single and live in cities; the males were illiterate while females held a diploma degree. Both groups belong to middle socio-economic status. Females were younger than males as the majority of them were in the 16-25 age group while the majority of males were in of the 26-35 age group. However, data from qualitative study in the current study shows different results at it was reported that attempted suicide patients were young, poor and suffer from depression. This may be explained by the limited sample size of the participating attempted suicide patients (83) and that they were recruited from only four governmental hospitals in the middle and south West Bank. Similarly, Soloff and Chiappetta (2012) conducted a longitudinal study of suicidal behavior in borderline personality disorder study and found that attempters differed from non-attempters in having significantly lower socio-economic status and less education. Controversially, the Gade et al. (2018) study found that the majority of attempted suicide patients 30 (41.6%) in India were in the 15-25 age group. Their study also found that the majority of the attempted suicide patients were males and married. Most of their study participants lived in rural areas while in this study and in the Zarrouq study (2015), the high rate of the attempts was among those that lived in the cities. Dabbag (2012) ethnographic study about suicide in Palestine reported that more men than women completed suicide, and more women than men attempted suicide. Completed suicide was higher in the older age range, and attempted suicide in the younger (Dabbag, 2012).

Similar to this study, Gade et al (2018) and Zarrouq et al. (2015) found that the majority of the participants were illiterate and in Gade et al. (2018) only reported high suicide attempts among graduates. Most of participants in Gade et al. (2018), Sabari and Shashikiran (2016) and Zarrouq et al. (2015) studies belong to the low middle class group while the participants in the current study were of middle socio-economic status. The Karam, Hajjar and Salamoun (2008) study across different Arab countries including Palestine found that in hospital based studies, attempts were among those single, ages 15-25 years, holding primary to secondary level education, students, housewives, unemployed, belonging to over-crowded large families, and holding a lower socio-economic status. Generally, studies showed inconsistent results on which characteristics confer greatest risk. These differing results may be related to different methods, sample characteristics and context of those studies.

5.1.2 Clinical history

In this study, as reported by the survivors, more than half of the attempted suicide patients 48 (57.8%) were not diagnosed with any mental disorders and 38.5% exhibited mental disorders. 29% (16 males and eight females) suffer from depression and 8 (9.6%) have other mental health problems). While the results of the qualitative data depicted mental illnesses and drug addiction as risk factors for attempting suicide. Karam, Hajjar and Salamoun (2008) also found that many psychiatric disorders were identified as risk factors for suicide, most commonly depressive disorders, adjustment, personality, and drug dependence/abuse disorders. Srivastava and Kumar (2005), Soloff and Chiappetta (2012) found that the risk of suicide attempt increased in case of previous psychiatric hospitalization (Soloff and Chiappetta, 2012) and Srivastava and Kulshreshtha (2000) found a low positive correlation between suicide attempts and the severity of depression. Botswick and Pankratz (2000) also reported that impulsivity, aggression and psychosis increased in attempters. Zarrouq et al. (2015) study in Morocco also found a

significant relationship between suicidal behaviors and tobacco consumption and psychoactive substances such as alcohol and cannabis. Christiansen and Jensen (2007) also found that mental disorders were risk factors for suicide.

Only six (7%) have a family history of suicide attempts. Consistent to this study, Gade et al. (2018) confirmed a family history of suicide was present in five (6.9%) of the patients and absent in 67 (93.1%) of the patients. Varied epidemiological studies on suicidality based on clinical patients or community samples have consistently suggested a familial transmission of suicide behavior (Qin, Agerbo & Mortensen, 2003; Gould et al., 1996; Kendler et al., 1997). Qin, Agerbo & Mortensen (2003) conducted a longitudinal study in Denmark and found that people with a family history of completed suicide, are at a 2.1-fold increased risk of committing suicide, compared to those without such a family history, even after adjusting for differences in individual socio-economic status and psychiatric history.

Regarding quantitative data results of the current study, the majority of attempted suicide participants had made one previous suicide attempt. The interviews with family members showed that most of the attempted suicide patients have made previous attempts and healthcare providers and key informants reported that the risk of reattempt increases among patients with a higher number of lifetime suicide attempts. In accordance with the current study results, many systematic review studies demonstrated that individuals with a previous history of self-harm were 25 times at risk for completed suicide compared to the general population (Needleman, 2001). Owens, Horrocks & House (2002) in their review of 80 observational and empirical studies found that the suicide rate increased with time as it ranged from 2% the first year to 7% at nine years.

5.1.3 Prevalence of attempted suicide

The prevalence rate of attempted suicide and completed suicide as reported by the interviewed key informants and service providers shows inconsistent results and ranges from 75-400 attempted cases annually and 14 completed suicide cases. The Family Protection Unit at police reported increasing the number of suicide attempts and completed suicide in the last five years (Miri & Khatib, 2019). The Family Protection Unit documented that in 2013 there were 431 attempted suicide cases (109 males and 322 females); in 2014: 310 attempted-suicide cases (78 males and 232 females); in 2016: 221 attempted suicide cases (15 males and 206 females); in 2017: 228 cases (29 males and 199 females); in 2018: 235 cases (23 males and 212 females) (Miri & Khatib, 2019; MAAN News, 2019; SAWA Organization, 2019). However, both key informants and healthcare providers mentioned that stigma and shame associated with suicidal behaviors affects obtaining adequate and proper documentation of suicide cases in Palestine. This stigma originates from social, religious and public sanctions against suicide. Dabbagh (2005) related underreporting of suicide to legal sanctions as all suicide cases should be reported to the police. Similar to findings from this study, Dabbagh (2005) reported underreporting of female suicide attempts that were brought to hospitals by their families. In the current study, key informants and healthcare providers mentioned that they respected the wish of the families not to report their relatives' suicide in order to avoid stigmatization and legal consequences. Eventually, this indicates that the actual cases were higher than the official reported data. The cultural and social stigma as well as the contextual influence such as family reputation impacts the disclosure of suicide cases and affects attempters from seeking help. Cultural differences were observed in the studies. Since Islam and Christian religions prohibit suicide, it is expected that the reported numbers from religious contexts could be lower than Western countries. Therefore, careful consideration should be undertaken when analyzing statistics all over the world and particularly studies from

societies that stigmatize suicidal individuals (Bachmann, 2018). Tøllefsen, Hem & Ekeberg (2012) reviewed studies published in English, German, French, Spanish, Norwegian, Swedish and Danish that assessed the reliability of suicide statistics. Their study concluded a lack of systematic assessment of the reliability of suicide statistics. Few studies have been conducted, and few countries have been covered. The findings support the general under-reporting of suicide. In particular, nationwide studies and comparisons between countries is lacking.

5.1.4 Mode of attempting suicide

In this study, it found that the most common mode of attempting suicide in both genders was hanging followed by ingested poison. Studies demonstrate that the method used in attempting suicide is a predictor of a subsequent successful suicide (Runeson et al., 2010; Hawton & Zahl, 2003; Tidemalm et al., 2008). Runeson et al. (2010) cohort study with follow-up for 21-31 years found that individuals that had attempted suicide by hanging, strangulation, or suffocation had the worst prognosis. Other methods (gassing, jumping from a height, using a firearm or explosive, or drowning) had significantly lower risks than for hanging. Their study further found that most individuals that successfully committed suicide used the same method as they did at the index attempt—for example, >90% for hanging in men and women. This is a significant finding for mental health providers to deliver more focused aftercare during the first few years after hospital admission. Preventive measures and strategies should take into considerations that patients often used the same method for the first attempt and the subsequent successful suicide.

5.1.5 Risk factors

Common factors behind suicide attempts were classified into five categories: economic factors, individual, familial, institutional and social factors. Suicide attempts were multi-factorial and multi-causal indicating that each of these factors can contribute to the emergence of suicide risk independently or interdependently. This also means that predicting suicide is difficult and healthcare providers should have sufficient knowledge, skills and communication skills to be able to identify potential risks for suicide (Ho, 2014).

At the individual level, mental illness, poverty and unemployment, feeling of worthlessness, punishing others, academic failure, drug addiction, loss of close family members and lacking coping mechanisms were the main causes. At the familial level, marital and excessive family conflict, romantic breakups, negligence and poor relationships between family members were the main causes. At the societal level, the key issues were isolation from close-knit society, lacking professional and follow-up care, and discrimination against women. Attempted-suicide patients reported family conflict, romantic problems, marital problems and feeling out of control as the main cause of their suicidal attempts. Consistently, Sabari and Shashikiran (2016) found that family problems (50.5%), and financial problems (19.4%) were the main causes of the attempts. Zarrouq et al. (2015) and Eskin et al. (2019) also found parent's separation as the main cause. Eskin et al. (2019) found loss of the parents and larger numbers of siblings were causes of the suicide attempt among university students. Studies have shown that family relationships have an effect on an individual's overall health in ways in which relate to the risk for suicide. Furthermore, it stressed that romantic relationships can provide individuals with support and power to overcome stressors (Umberson, 1992, Waite et al., 2008). Similar to other Arab countries, in Palestine, family ties are strong and can play a positive role in providing social support to each other. However, living in troubled and dysfunctional families, and exposure to domestic

violence increased the risk of attempted suicide as reported by key informants and healthcare providers. This is consistent with the longitudinal studies that showed that family factors (such as family conflict and physical punishment) predisposed individuals to suicide risk (Fitzgerald et al., 2010; Fergusson et al., 2003). Still, Niederkrotenthaler & Tran (2016) found that conflict in relationship with partners, and unsolved problems increased the risk for suicide.

5.1.6 Attempted-suicide patients' perception

This study also addressed attempted suicide patients' perceptions of the services they received at the time of the attempt in the emergency units; the perceptions were generally positive regarding the role of health providers and the overall intervention. However, part of them reported receiving insufficient information about follow-up care, information about suicide risk and treatment benefit and risks. They also complained about having judgmental and negative attitudes and being blamed by the healthcare providers. Stigmatizing behaviors of mentally ill and suicidal patients by healthcare providers is widely discussed in the literature. Cases of suicidality require more sensitivity and consideration of clinical judgment (Ho, 2014). Emergency units are the first units at the hospital that have close contact with the attempted suicide patients. Therefore, most of the studies emphasized that negative experiences can affect help seeking behaviors (Bruffaerts et al., 2011; Dekker, Vergouwen, Buster & Honig, 2017). Actually, the recurrent risks for suicide attempts warrant systematic steps to restore the patient's sense of self-worth to address suicidality. However, sometimes, lack of trust and self-respect refrains patients from seeking help.

5.1.7 Healthcare providers' perception

Data from the interviews with key informants and healthcare providers claimed lack of expertise and skills of healthcare providers at the emergency department regarding assessment, treatment and referral of attempted suicide patients—this may explain healthcare providers' stigmatization, negative attitudes and blaming of attempted suicide patients. Stigma-related behaviors may be associated with lack of awareness, holding pessimistic views about the likelihood of recovery from suicide, inadequate skills and training that is believed to lead to feelings of anxiety or fear and a desire for avoidance and social/clinical distance among practitioners, which can negatively impact quality of care (Knaak, Mantler and Szeto, 2017).

Interestingly, in the current study it was found that healthcare providers that worked with less than five patients monthly had no experience in working with the attempted suicide patients. They further mentioned their needs for more specialized training on how to deal with attempted suicide cases. This may indicate that many of the attempted suicide cases are under-detected and ill-treated. This is consistent with the findings of many other studies that focused on inadequate training and insufficient knowledge of general medical care by providers, which distorts their ability to identify and treat mental health and suicide risk, or to discuss these issues with patients (Ahmedani & Vannoy, 2014; Hooper et al., 2012 and Graham & Bryan, 2011).

5.2 Recommendations to Improve the Quality of Care Provided

This study presents a comprehensive analysis of the risk factors, mode of suicide attempts, association between socio-demographic factors and the suicide attempts. In the light of the study results, networking with different professionals and institutions is essential to improve the quality of care. All stakeholders should collaborate at various

levels to slow down the recently witnessed escalation in suicide attempts. Therefore, the research team recommends the following:

1- Evidence provided by this research can substantially inform policy makers to develop written, systematic, clear and comprehensive suicide risk assessment protocols and a national registry system to promote the safety of attempted suicide patients and to prevent suicide.

2- This study presents an in-depth understanding of the current state of knowledge in attempted suicide research in Palestine. Detailed descriptions of documentation strategies, data registry, risk assessment, and treatment measures are provided. These aspects will enrich mental health professionals' awareness of potential barriers in managing suicidal attempt patients.

3- To change and correct misconceptions, reduce stigma and false beliefs among healthcare providers that may negatively impact care, policy makers must devise educational programs to increase knowledge, skills, and awareness of healthcare providers about suicidality.

4- It is important to assign a mental health professional and to have a psychiatric counselor at emergency departments. Their roles should be to provide medical care, assess the severity of the suicide attempt, assess risks, assess the need for follow-up care, and to provide adequate referral.

5- Families and patients need the support of mental health professionals in developing and maintaining effective communication skills. Effective communication among family members is a critical component for effective coping, particularly in supporting conflict resolution. Therefore, it is recommended to involve family members in early detection and management of family members at risk.

6- In the light of the evidence provided in this study regarding methods of attempted suicide, multi-components of secondary and primary care interventions can reduce the incidence of attempted suicide. Similarly, increased family care and more targeted mental health services with prevention of access to lethal means of suicide can help reduce such incidence.

7- Mental health providers must deliver more focused post-care during the first few years after hospital admission. Preventive measures and strategies should take into considerations that patients often use the same method for the first attempt as the subsequent successful suicide.

8- Understanding risk factors of attempted suicide such as having previous attempted suicide, family conflict, marital problems, financial hardship, and mental illness will be helpful in designing prevention programs that should directly target specific risk factors that impact suicide attempts.

9- Qualitative studies should be conducted to understand attempted suicide patient perspectives on the issue of treatment and assessment.

10- Additional research on a larger sample is warranted to uncover other variables that are associated with suicide attempts, self-harm and completed suicide through researching multiple informants such as siblings, teachers, and family members.

Public Mental Health Centers in West Bank

#	Center Name	Phone	Fax
1	Hebron Mental Health Center	0562401735	02-2226078
2	Mental Health Center for Children and Adolescents / North Hebron	02-2212419	02-2212420
3	South Hebron Mental Health Center	02-2281411	02-2281413
4	Bethlehem Mental Health Center	02-2741756	02-2741023
5	Yatta Mental Health Center	02-2227695	02-2281412
6	Jerusalem Center for Mental Health / Bethany / Bir Nabala / Bedo / Ram	02-2790261	02-2791510
7	Ramallah Center for Mental Health	02-2408593	02-2408594
8	Jericho Mental Health Center	02-2322573	02-2322573
9	Tubas Center for Mental Health	09-2571096	09-2571095
10	Salfit Mental Health Center	09-2515620	09-2515066
11	Nablus Mental Health Center	09-2345425	09-2345425
12	Jenin Center for Mental Health	04-2502608	04-2502607
13	Tulkarem Center for Mental Health	09-2671423	09-2675236
14	Bethlehem Mental Hospital	02-2741155	02-2741657

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ANNEXES

- Annex 1 -

Healthcare Providers Interview Guide

Qualitative part

A- Demographic Questionnaire

Hospital: 1. Private **2. Government**

District:

1. Bethlehem
2. Jerusalem
3. Ramallah

Age: _____

Gender: 1. Male 2. Female

Specialty:

1. Physician
2. Social worker
3. Nurse
4. Midwife

Level of Education:

1. Diploma
2. Bachelor
3. Master
4. PhD

Years of experience:

1- Less than 5 years
2- 5years-10 years
3- 11years -20years
4- More than 20 years

How many attempted suicide clients do you see in the last 5 years:_____

Please circle the number of times per month that you currently assess client's for attempted suicide.

1. < 5
2. 6-10
3. 10-19
4. >20

"Have you participated in courses or training in the assessment and treatment of patients with suicidal behaviour during the last five years?"?

1- Yes
2- No

Contact with Suicidal Behaviors in clinical practice

1. Did (or do) you have any patient who has made one or several suicide attempts?

Yes No

If yes: answer the follwing two questions

2- How many patients/clients? _____patients

3- How long ago was the last case?_____Years

4. Have you ever had a patient representing a serious risk of suicide or suicide attempt even though he/she hasn't carried it out?

Yes No

5. How many patients/clients?_____patients

6. How long ago was the last case?_____Years

7. What was the cause for not commiting suicde?

_____

8- "I think my present competence provides me with skills to care for suicide attempters"

Yes No

9- "I am in need of further training to be able to work with people who have tried to end their life".

Yes No

B- Interview protocol for healthcare providers focus group and Representatives of the Palestinian National Committee for Suicide Prevention and Response

Theme	Questions
Causes/ factors of suicide attempt	What are the causes of suicide attempt?
Experience of provided treatment	Are there standardized suicide risk assessment tools you use? What are they? Do you have any protocol in dealing with attempted suicide? Explain Do you have any protocol in documenting suicide attempt? Explain What has been most helpful in terms of patient recovery after attempting suicide? What has been least helpful in terms of patient recovery after attempting suicide? (Such as helping intervention) What needs (related to suicide attempt) do you still have today? (Such as challenges) What advice would you give to other clinicians who work with suicidal patients?
Assessment of suicide risk	"How do you determine the seriousness of a client's risk potential?" "How valuable are assessment protocols and instruments to your practice of suicide assessment?" "Are there any systematic barriers that hinder your ability to adequately conduct a suicide assessment?"

- Annex 2 -

Healthcare Providers questionnaire

Quantitative part

A- Demographic Questionnaire

Hospital: _____

District:

4. Bethlehem
5. Jerusalem
6. Ramalla

Age: _____

Gender: 1. Male 2. Female

Specialty:

5. Nurse
6. Midwife
7. Physician

Level of Education:

5. Diploma
6. Bachelor
7. Master
8. PhD

Years of experience:

5- Less than 5 years
6- 5years-10 years
7- 11years -20years
8- More than 20 years

How many attempted suicide clients do you see in the last 5 years:_____

Please circle the number of times per month that you currently assess client's for attempted suicide.

5. < 5
6. 6-10
7. 10-19
8. >20

"Have you participated in courses or training in the assessment and treatment of patients with suicidal behaviour during the last five years?"?

3- Yes
4- No

Contact with Suicidal Behaviors in clinical practice

1. Did (or do) you have any patient who has made one or several suicide attempts?

Yes No

If yes: answer the follwing two questions

2.How many patients/clients? _____patient

3.How long ago was the last case?_____Years

4. Have you ever had a patient representing a serious risk of suicide or suicide attempt even though he/she hasn't carried it out?

Yes No

If yes answer the follwing two questions:

5. How many patients/clients?_____patient

6. How long ago was the last case?_____Years

7- "I think my present competence provides me with skills to care for suicide attempters"

Yes No

8- "I am in need of further training to be able to work with people who have tried to end their life".

Yes No

B- Intervention Strategies towards Suicidal Behaviors Questionnaire (ISBQ)

Intervention strategy	Not Likely at All	Not very likely	Somewhat likely	Likely	Very likely
1. I ask about prior suicide attempts.					
2. I assess depression.					
3. I set written no-suicide/suicide prevention contracts.					
4. I ask questions about problems he/she may be experiencing					
5. I ask if he/she wants to die.					

6. I ask what he/she expected when attempting suicide.					
7. I use formal instruments to assess suicide risk.					
8. I engage the family in the process.					
9. I assess the circumstances in which the attempt was carried out.					
10. I refer/advise to psychiatric counseling.					
11. I ask about the lethal means used in the attempt.					
12. I approach the theme of death.					
13. I advise a continued care plan.					
14. I try to understand the meanings of the suicide attempt.					
15. I give a mobile phone number					
16. I refer/advise to psychological counseling.					
17. I try to find out at what time the suicide attempt was carried out.					
18. I assess the hopelessness.					
19. I provide counseling to the family.					

20. I try to understand the motives that trigger the attempt.					
21. I ask about the alcohol and drugs consuming habits.					
22. I explore the existence of an elaborate suicide plan.					
23. I use specific intervention protocols.					
24. I assess the risk factors.					
25. I carried out a personality evaluation.					
26. I ask about the family suicidal background.					
27. I ask what reasons he/she has for living and for dying.					
28. I refer to a colleague who is better prepared in this area.					
29. I suggest using the internet to communication.					
30. I prescribe medication/I refer to someone who can prescribe medication.					
31. I refer/advise to the general practitioner.					
32. I try that the patient be hospitalized.					

33. I use specific suicidal behavior assessment instruments.					
34. I ask about the two days prior to the suicide attempt.					
35. I ask how he/she feels about having survived.					
36. I try to understand if there is a non-solved or current mourning process					
37. I conduct a family interview.					
38. I try to understand how the patient usually solves his/her problems.					
39. I refer to psychotherapy.					

- Annex 3 -

Key informants Interview Guide Qualitative part

A- Demographic Questionnaire

Name of the institution:_____

Age:_____

Position:_____

Gender: 1- Male 2- Female

Education level:

1. Bachelor degree
2. Maser degree
3. PhD degree

Specialty:

1. Psychiatrists
2. Psychologist
3. Social worker
4. Nurse
5. Human rights
6. Other/ specify: _____

Place of Residence:_____

Nature of institution:

1. NGO's
2. Private sector
3. Government sector
4. Other, please specify:_____

Geographical scope of your institution: (Tick all that apply)

1. National
2. Regional
3. International
4. Other, please specify:_____

B- Interview protocol for key informants

Theme	Questions
Prevalence	Do you have an idea about prevalence of suicide in Palestine
Risk factors	Can you tell us about causes of suicide attempts
Treatment protocol	Are there standardized suicide risk assessment tools you use? What are they? Do hospitals have any protocol in dealing with attempted suicide? Explain What has been most helpful in terms of patient recovery after attempting suicide? What has been least helpful in terms of patient recovery after attempting suicide? (Such as helping intervention) What needs (related to suicide attempt) do you still have today? (Such as challenges)
Unmet services and recommendations for future strategies to inform professionals and public understanding and supportive measures for attempted suicide cases	What advice would you give to clinicians who work with suicidal patients? Do you recommend specific action plans for making their environment safer and for identifying sources of help? How could institutions raise awareness to public about attempted suicide? What are the comprehensive risk assessment strategies to inform decisionmaking about treatment? Potential strategies to reduce suicide/ documentation

	etc…
Assessment of suicide risk	"How do you determine the seriousness of a client's risk potential?" "How valuable are assessment protocols and instruments to your practice of suicide assessment?" "Are there any systematic barriers that hinder your abilitytoadequatelyconductasuicideassessment?"
Documentation	How do hospitals document attempted cases? Explain Do you have any recommendation to improve documentations of attempted cases?

- Annex 4 -

Attempted suicide patients questionnaire

A- Demographic Questionnaire

Age: _____

Gender: 1. Male 2. Female

Place of residence:

1. City
2. Village
3. Camp
4. Other, specify: _____

Level of Education:

1. Illiterate
2. Elementary school level
3. Middle school level
4. Secondary school level
5. Diploma
6. Bachelor
7. Master
8. PhD

Socioeconomic status:

1. Low
2. Middle
3. High

Marital status

1. Unmarried
2. Married
3. Divorced
4. Widow

Psychiatric diagnosis

1. No diagnosis
2. Depression
3. Schizophrenia
4. Personality disorder
5. Posttraumatic stress disorders
6. Other, specify: _____

Has anyone in your close family (father, mother, sister, brother, children) ever attempted suicide?

1. Yes
2. No

3. Refused

Has anyone in your close family (father, mother, sister, brother, children) ever died from suicide?

1. Yes
2. No
3. Refused

Number of your previous suicide attempts:

1. Once
2. Twice
3. 3 times
4. 4 times
5. Other, specify:_____

If you had attempted suicide during the past 12 months, please answer the following questions:

What was the main method you used in the last time you attempted suicide?

1. Poison
2. Overdose
3. Hanging
4. Cutting
5. Firearms

6. Drowning
7. Jumping from high building
8. Other, specify:_____

Interval between your last suicide attempt and medical intervention

1. ≤2 hours
2. ≻2 but or≤ 4 hours
3. ≻4 but or ≤6 hours
4. ≻6hours

What was the cause of attempting suicide?

1. Marital problems
2. Family conflict
3. Work stress
4. Romantic conflict
5. Academic failure
6. Pain related
7. Feeling out of control
8. Other/ specify

B- Patients' perceptions of treatment and assessment strategies toward suicide related services

Question	Yes	No	Refused to answer
Did you seek medical care for this attempt?			
Were you admitted to the hospital overnight because of this attempt?			
Psychiatric follow-up arranged by the team at the hospital			
They prescribed medication to me			
I had been referred to a psychologist			
They discharged me without assessment or follow-up			
They discharged and refereed me to follow-up			
I self-discharged myself before full treatment completion			
Resources were lacking and swift action was avoided for financial reasons			
I would like people to treat me with the same respect as a patient having a heart attack.			
I received not enough follow-up after getting out of hospital			
I was not Involved in decision-making regarding treatment needs			
I preferred to have been involved in decision-making			
I was provided with information on treatment options			
I want to be given enough information about treatment			

I was provided with additional information on following treatment options such as psychotherapy			
I want to have additional information on following treatment options such as psychotherapy			
I was given leaflet on self-harm and suicide			
I'd like to have leaflet on self-harm and suicide			
I was given the opportunity to talk openly			
Healthcare providers were listening to me and showed empathy			
Healthcare providers helped me to attend a support group			
I was provided with enough information in how take care of myself such as doing thing to stay busy			
I was provided with enough information in how take care of myself such as positive talk and affirmation			
I was provided with enough information in how take care of myself such as doing physical exercise			
I was provided with enough information in how take care of myself such as doing things with other people			
Health providers supported me while I was in the hospital			
Healthcare providers check on me in a timely manner			
Healthcare providers spent enough time with me			
Healthcare providers did not explain the proposed treatment plan, including the risk/benefit of my treatment.			
The environment in the hospital was safe			
Health providers blamed me for attempting suicide			
Healthcare providers were judgmental			
Healthcare providers treated me as a burden to them			

I was restrained			
I was secluded			
Healthcare providers did not attempt any other measures before placing me in the restraint/ seclusion			
I felt that healthcare providers did not make a responsible decision to use restraints/ seclusion			
The time I was placed in restraints and seclusion was over extended			
Being placed in restraints made me reluctant to seek out psychiatric care in the future			
Healthcare providers did not pay attention to my appeal for help.			
Healthcare providers did not make frequent checks on me while in seclusion			
Healthcare providers supported me a lot			
The institution lack clear protocol (guidelines) of how to deal with suicidal patients			

- Annex 5 -

Medical record file checklist of attempted suicide clients

	Yes	No	Not mentioned
Patient admitted to emergency unit for assessment			
A preliminary suicide risk assessment has been conducted.			
Verbal interventions were used with attempted suicide client			
Voluntary medications were administered			
Emergency medications were administered			
Food and drink and other assistance were provided as a first line consideration			
Restraints or seclusion were used as a second line consideration			
Continuous monitoring of an attempted suicide client was placed in restraints or seclusion, at no longer than 15 minutes intervals.			
The client moved to a ground floor room after assessing high or medium risk level.			
Attempted suicide with high risk was being cared for in a room that is easily observable and from which exit can be monitored.			
A calming support person stayed with the person at risk			
Specialist professions were contacted once the person is medically stable			
A referral to mental health service or where appropriate,			

other specialist service for a comprehensive suicide risk assessment was made immediately			
Members of the treating team were notified of the preliminary suicide risk assessment and management plan.			
Make a decision to discharge the person was made after arranging a follow-up by the mental health service.			
Management plan was documented in the medical record			
Level of assessed risk was documented in the file			
Frequency of observations was documented			
Requirement for a 'special' nurse was documented			
The frequency of re-assessment was documented			
Management plan documented information regarding triggers, stressors, precursors, methods/ plans and the individual importance of various factors to the patient, including anticipation of likely circumstances that may escalate the patient'srisk.			
Management plan documented information regarding plans and the individual importance of various factors to the patient.			
Management plan was documented information regarding circumstances that may escalate the patient's risk.			

- Annex 6 -

Individual interview guide for family member

A- Demographic Questionnaire

Age: _____

Gender: 1. Male 2. Female

Place of residence:

5. City
6. Village
7. Camp
8. Other, specify: _____

Level of Education:

9. Illiterate
10. Elementary school level
11. Middle school level
12. Secondary school level
13. Diploma
14. Bachelor
15. Master
16. PhD

Socioeconomic status:

4. Low
5. Middle
6. High

Marital status

5. Unmarried
6. Married
7. Divorced
8. Widow

Psychiatric diagnosis of your son/ daughter

7. No diagnosis
8. Depression
9. Schizophrenia
10. Personality disorder
11. Posttraumatic stress disorders
12. Other, specify: _____

Has anyone in your close family (father, mother, sister, brother, children) ever attempted suicide?

4. Yes
5. No
6. Refused

Has anyone in your close family (father, mother, sister, brother, children) ever died from suicide?

4. Yes
5. No
6. Refused

Number of your previous suicide attempts of your son/ daughter:

6. Once
7. Twice
8. 3 times
9. 4 times
10. Other, specify:_____

B- Family members' experiences

Theme	Questions
Causes of suicide attempt	What was the reason that made your son/daughter attempt suicide?
Experience with their son/ daughter suicidal attempt	Can you tell us about the suicidal attempt of your son/daughter? Where did you send him/her? What did they do for him/her? Elaborate
Treatment measures	How do you describe the provided care? Elaborate Can you tell us what the health team in the emergency department did to your son/ daughter immediately after admitting him/her to emergency department? How did the treatments measures help your son/ daughter? How did the treatment measures affect your son/ daughter? For example, encourage or discourage him/her from seeking future help Did health team refer your son/ daughter to a therapist? Elaborate How did you evaluate the provided counseling? Please explain more Did anyone work with you while your son/ daughter in emergency? Elaborate
Recommendations	Depending on your experience, what kind of recommendation will you suggest to improve the provided care to attempted suicide clients?

احنا معك

اليوم الدولي لمنع الانتحار

وزارة الصحة
الفلسطينية

10 September 2019

اذا كنت تشعر بفقدان الأمل و العجز، تكلم مع أصدقائك، مع عائلتك أو تواصل
مع أقرب مركز مجتمعي مختص بالخدمات النفسية

معا نختار الحياة اسمح للغير أن يقف معك

MÉDECINS DU MONDE

منظمة أطباء العالم سويسرا