SUICIDAL DEATHS IN ADDIS ABABA: ANALYSIS OF ITS EPIDEMIOLOGY AND PSYCHOSOCIAL CONDITIONS

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Running Head: SUICIDAL DEATHS IN ADDIS ABABA

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List of Abbreviations

ATTS	Attitudes towards Suicide Scale
EAAD	European Alliance against Depression
CSA	Central Statistics Authority
NGO	Non-Governmental Organization
PHAS	Psychosocial Harm Assessment Script
P I	Principal Investigator
PTSD	Post traumatic Stress Disorder
SPSS	Statistical Package for Social Sciences
SUPRE	Suicide Prevention Program
SW	Social Work
WHO	World Health Organization

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Abstract

Suicide (willful, deliberate and intentional self harm) is a global public health and social problem affecting the most productive age group, and the elderly, at the other extreme. It gained policy and research attention worldwide. In Ethiopia, even thought there is indication for the occurrence of more suicidal deaths in Addis Ababa, there is no proper registration and certification of suicidal deaths that is meant for public health purpose in concerned governmental organizations. This study is conducted to look into the distribution and explore the psychosocial condition that lead people to commit suicide and examine the extent of psychosocial impacts on the relatives or families of people who commit suicide in Addis Ababa. Secondary data was collected from two institutions, namely, Forensic Pathology Department at Menilik II Hospital and Homicide Crimes Investigation Unit at Addis Ababa Police Commission. Qualitative data was also collected from close relatives or care givers of people who commit suicide between January 01 and December 31/2013 and within the past one year and forensic pathology and crime investigation experts working at respective institutions.

Within one year, 205 people were died due to suicide the majority of whom are males. While hanging is the most frequently used means, social isolation, mental illness, family conflict, economic problems and lack of religious commitment are perceived as causes of suicide. The findings of this study indicate that there is a need to consider policy and programmatic actions directed towards suicide prevention and control. In addition to conducting community wide research in suicide, it is important to preserve social and cultural values; institutionalize traditional family conflict resolution practices and strengthen mental health institutions.

Key words: suicide, investigation, epidemiology, impact, psychosocial, means

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INTRODUCTION

Background

According to Durkheim (1987), "*Suicide is applied to all causes of death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result*." He differentiates it from the notion of attempt, which is "*the act thus defined, but interrupted before resulting in death*" (Tartaro and Lester, 2005). Suicide is also defined as the act of deliberately killing oneself (WHO, 2013).

Every year, almost one million people die due to suicide around the world (WHO, 2011). Suicide remains a significant social and public health problem constituting 1.8% of the total disease burden in 1998. This figure is estimated to rise to 2.4% by 2020 (Golmirzaei, 2009). Worldwide, suicide is among major leading causes of death affecting the most economically productive age group (15-44 years) (Patton et al., 2009). At the other end of the age spectrum, the elderly are also at high risk in many countries.

Risk factor for suicide includes mental disorders, social isolation, family conflict, unemployment, chronic illnesses, alcohol or drug abuse, acute emotional distress, violence, change in an individual's life, such as loss of employment, separation from a partner, or other adverse events, or, in many cases, a combination of these factors (WHO, 2013, Vijayakumar, 2005, Kimberly et.al, 2010, Nazarzadeh et.al, 2013).

The impact of suicide on the survivors, such as spouses, parents, children, family, friends, co-workers, and peers who are left behind, is significant, both immediately and in the long-term. Loss, grief, depression, lack of social

representation and economic burden are some of the problems families are suffering from.

Suicidal behaviors can be conceptualized as a complex process that can range from suicidal ideation, which can be communicated through verbal or non-verbal means, to planning of suicide, attempting suicide, and in the worst case, suicide. These behaviors are influenced by interacting biological, genetic, psychological, social, environmental and situational factors. Egocentric personality disorders and developmental problems are the major factors that trigger these behaviors (Wasserman, 2001).

Although suicide continues to remain a serious problem in high income countries, it is the low and middle income countries that bear the larger part of the global suicide burden. It is also these countries that are relatively less equipped to prevent suicide. Unable to keep pace with the rising demand for mental health care, they are especially hindered by inadequate infrastructure and scarce economic and human resources. These countries have also lower budgetary allocations for health in general and mental health in particular. As a result, there are few sustained efforts and activities that focus on suicide prevention to reduce the number of lives lost due to suicide (Vijayakumar, 2005).

Statement of the Problem

According to WHO (2011) report, in low and middle income countries, lack of knowledge and absence and /or fragmented nature of proper death registration and certification are the major problems for suicide statistics. In some countries data on intentional self harm may be included within an aggregate category of external injuries. This makes distinguishing suicide from other accidents or homicides difficult. In some other countries registration of suicide faces problem of including important variables such as sex, age and religion. Still in others, registration and reporting of suicide cases is non-existent. Therefore, WHO recommended establishment of registration mechanisms for suicide. In order to improve the existing registration system and establish new system it provides resources that are meant to support the activities of identification, certification and classification of suicidal deaths (WHO, 2011).

According to the 2012 world directory, suicidal deaths in Ethiopia reached 7,228 or 0.88% of total deaths. The age adjusted death rate (as adjusted in three categories i.e. 1-14 years, 15-44 years and above 45 years) is 13.96 per 100,000 of population ranks Ethiopia 35th in the world (World Directory, 2012). A retrospective analysis of mortality patterns from communicable and non-communicable diseases in 43 hospitals of Addis Ababa indicates that, of the total 47,153 deaths 893 (1.9 %) were attributed to suicide (Misganaw et.al. 2012).

Given the fact that suicidal deaths are significant in Ethiopia, their registration and certification is incomplete and it is solely for the purpose of

criminal justice administration rather than public health statistics, hence has no epidemiological significance. There are no programmatic or policy actions that are targeted at its prevention and /or reduction. The researcher is with the opinion that identifying social and psychological causes of suicide and understanding the extent of psychosocial impacts of suicide is of paramount importance to plan for its prevention and control.

Significance of the study

Effective health planning and policy formulation is an important aspect of improving the quality of life of citizens. In order to make an informed decision, develop effective health policies, evaluate the existing programs and policies and improve accountability policy makers need to have information on the distribution and trends of the causes of mortality (Kishan et.al, 2011). However, most low-income countries, including Ethiopia, lack systems to document mortality rates and causes of death. Even though the magnitude of suicide is high, it is not accorded due recognition in Ethiopia. Apart from declaring that it is a criminal act in the revised penal law, attempts to its prevention are minimal or non-existent. The major contributing factors for suicidal behaviors are mental illnesses. Mental health care services are poor owing to absence of institutions and shortage of trained man power.

There is no well organized system of registration and certification of cause of death in the country. This is true not only for suicide but also for all causes of death. The investigation and registration of suicide in the two institutions namely Forensic Pathology Department at Menilik II Hospital, the only hospital that

provide this service in the country, and Homicide Crimes Investigation Department at the Addis Ababa Police Commission, is solely for the purpose of criminal justice administration.

Therefore, the findings of this study will inform policy makers and health planners to introduce a system of death registration and certification so that resources will be directed to device mechanism of averting the most prevalent means of suicide. To the best of the researcher's knowledge, suicide research is lacking in Ethiopia. In addition to informing the prevalence and distribution of suicide in Addis Ababa, this study will serve as a back ground for further studies. Moreover, the result of the study will also serve as reference material for individuals and institutions who are interested to explore facts about suicide in Ethiopian context.

Objective(s)

The objective of this study is to analyze the distribution, reasons, and means of suicide and to explore societal views towards suicide in Addis Ababa

Specific Objective

- To determine the distribution of suicide in Addis Ababa
- To assess the most commonly used means of suicide in Addis Ababa
- To explore the reasons why people commit suicide
- To explore the major impacts of suicide among the families of people who commit suicide.
- To analyze the societal views towards suicide.

Operational Definition

For the sake of clarity and consistency the following definitions will be used.

Suicide and intentional self harm will be used interchangeably to refer any willful, deliberate and intentional action performed by the individual to kill him/herself.

Impact: can be direct and indirect or tangible and intangible. Accordingly, direct impacts refers to those consequences directly affecting individual family members of the deceased and society at large due to the consequences of the suicidal act such as health problems, loss of income, lack of access to basic needs and services, loss of social representation etc. Indirect impacts are those impacts affecting the community or institutions by making them to shoulder the burden of the deceased and his families.

Caregiver: is a member of a household, extended family or community member who is giving social, economic, and/or psychological care and support and/or personal care and assistance to the deceased.

Deceased and decedent: will be used to refer the person who committed suicide within the past one year

Forensic Pathology*:* Examination of the dead body by a trained pathologist for the purpose of administration of justice**.**

Psychosocial autopsy: method of detecting suicidal deaths that occur in Addis Ababa using information derived from next of kin or care givers of decedents who were immediate care gives during the time of the death.

Suicide means: any means used by the deceased to kill him/ herself including but not limited to chemicals, guns, electricity, water hanging etc**.**

Suicide Mortality: the number of deaths that occur due to suicide within one year (January 01-december 31/2014) in Addis Ababa.

Delimitation of the Study

As a qualitative study focusing on households and institutions, it is aimed at evaluating conditions associated with suicide and overseeing the epidemiology of suicide in Addis Ababa. In trying to explore factors that lead people to commit suicide, the study is also aimed at exploring the deeper societal understanding and religious views towards suicide.

Moreover, it is also focused at looking for ways of preventing and controlling suicide at community and individual level. To this effect it is believed that the study will shade light to policy makers and researchers to come up with effective policy options towards prevention and control of suicide by conducting rigorous community wide research.

Scope of the Study

Scope wise, the study is limited to Addis Ababa, the capital of Ethiopia. It has ten sub cities and more than 100 woredas (kebeles). According to the 2007 national census, the population of Addis Ababa is reported to be 2,738,248 (1,304,518 males and 1,433, 730 females CSA, 2007). As it is big city, where, people from all corners of the country fled, there are multitudes of social and economic problems. It is anticipated that suicide rates are higher in Addis than any other cities and towns in Ethiopia.

There are 13 governmental and more than 35 private hospitals in Addis Ababa. Amongst these hospitals forensic pathology examination is conducted in

Menilik II hospital. According to the 2005 revised criminal code, suicide is a criminal act. Therefore, the Addis Ababa Police Commission also has forensic department for the investigation of suicidal deaths. These two institutions were communicated to find the trends of suicide across the city.

As to the qualitative data, the study covers selected key informants from households of decadents that commit suicide within the past one year. In addition to these, experts from the two institutions were also consulted for their experience in suicide registration, investigation and certification and opinions about suicide.

Limitations of the Study

Secondary data used for this study is collected for the purpose of criminal justice administration. As important socio-demographic variables are not included in the registers, it was not possible to study the association of conditions related to suicide with basic variable. Due to limitations of time and finance, it was impossible to find comprehensive information pertinent to this study. Therefore, quantitative data analysis is limited to description of suicide only by sex and means As there may be instances whereby some suicidal death could be registered as accidental or homicidal ones, the total number of cases registered as suicidal in this study may not show the actual figure within one year. Some suicidal deaths due to electric shock, car accident and fall may be missed in this data.

The findings of this research are based on the information derived from close relatives of decedents, who knew about, their lifestyles, experiences and general conditions. However, it may not be possible to know full history of decedents as people may have their own non disclosed secretes.

Organization of the report

The report is organized and discussed based on the thematic areas of the study. In order to explore factors that are associated with suicide epidemiology and psychosocial factors, the findings of the study are also presented in a logical manner based on the objectives of the study. Quantitative data, relevant to the objectives, are summarized in the form of tables and narrated accordingly. Key informant interview findings, field observation notes and in-depth interview information are discussed in such away as to reflect the findings with respective study objectives.

To explain the study objectives, relevant case stories that effectively reflect the stated objectives are summarized and narrated. Moreover, participants' explanations and narration are quoted verbatim. When necessary, non-verbal explanations and feelings are also explained to make the report more explanatory.

Literature Review

Suicide: Definition and historical perspectives

The world suicide is defined as the act of deliberate, intentional and wished-for self destruction (Fairbairm, 1995). Why people commit suicide may vary with time and place. People may harm themselves for a various reasons including but not limited to use of fire arms, drugs, poisonous substances, hanging and strangulation. In order to decide about the acts performed to harm oneself it is important to look into the personal and social intentions and motivating factors. This is because the motive behind the decision to destruct oneself may be related with the choice of method.

It was the French-Jewish sociologist Emile Durkheim who made optimistic remarks at the turn of the century, in 1897, in his famous work *Le suicide*, which marked the beginning of the scientific study of suicide (Durkheim, 1966, p167). Inspired by positivism and a faith in progress, Durkheim set out to probe the relationship between society and the individual, and the social phenomenon of suicide appeared to him the ideal subject, demonstrating the need for establishing sociology as an independent academic discipline.

The universality of suicide as a form of human behavior across all societies and cultures is well documented (Stengel, 1975). Attitudes toward suicide have varied over time and place, reflecting the ideologies of each society to the value of life and the concept of death. Thus, the attitudes toward suicide in some societies of the ancient world, for example the Ancient Egyptians or the Greeks of the Homeric period, could be described as "justifiable in specific situations" and "non-

condemning" (Cohn, 1972). In contrast, current Western negative attitudes toward suicide are likely a consequence of Judeo-Christian traditions. St. Augustine's 4th century writings against suicide and the 6th century council of Braga both illustrate Christianity's consistent regard of suicide as the most grievous crime of all (Stengel, 1972)

Suicide: Global incidence

Suicide is a major public health problem, representing the 10th leading cause of death worldwide WHO, 2011). The incidence rate for completed suicide varies considerably between different countries, from 1.1 per 100,000 inhabitants in Azerbaijan to 51.6 per 100,000 inhabitants in Lithuania (WHO, 2002). The highest suicide rates are found in European countries (Sweden, Belarus, Estonia, Lithuania and Russia); low rates are found mainly in Latin America (Colombia, Paraguay) and in some countries in Asia (Philippines and Thailand), while countries in other parts of Europe, North America, and other parts of Asia and the Pacific tend to fall somewhere in between these extremes. Sweden, a country known for its high rate of suicide, also has the highest suicide rates than the rest of Scandinavian and European countries. Even though its rate is declining in Sweden, it still remains relatively high as compared to many other industrialized nations in the 21st century (Reutfors et.al. 2009).

Patton (2009) in their work on suicide proposed that social characteristics are determinants of a society's suicide rate. Specifically, the degree of social integration (the extent to which members of society are bound together in social networks) and the degree of social regulation (the extent to which the behavior, desires, and emotions of the members of the society are regulated by the society)

were viewed as important causes of suicide. Additionally, economic changes, whether good or bad, were perceived by them as predictors of suicide rates in industrialized societies.

Suicide Prevention

The suicide prevention program (SUPRE) launched by the World Health Organization (WHO) in 1999 has been the first initiative for the prevention of suicide (WHO, 1999). As part of the SUPRE, the WHO publication that is meant to address specific groups and individuals that work for suicide prevention, calls for collaborative participation of different stakeholders, including, health professionals, educators, social agencies, governments , legislators, social communicators, law enforcers, families and communities (WHO, 2011).

Mann *et al*. (2005) stated that suicide prevention is possible, because, up to 83% of suicides have had contact with a primary care physician within a year before their death and up to 66% within a month. Thus, a key prevention strategy is improved screening of depressed patients by primary care physicians and better treatment of major depression. Many interventions such as pharmacotherapy and psychotherapy, education of professionals and gate keepers, restricting media coverage and reducing access to means, have been indicated by Mann et al. (2005) as strategies to reduce the frequency of suicide attempts.

Restricting access to common means of suicide, such as firearms, toxic gas, pesticides and other, has been shown to be effective in reducing rates of death in suicide. According to Sarchiapone et. al. (2011) a number of factors may influence an individual's decision regarding method in a suicide act, but there is substantial

support that easy access influences the choice of method. Based on the findings of their study, the authors recommend restriction to means of suicide may be particularly effective in contexts where the method is popular, highly lethal, widely available, and/or not easily substituted by other similar methods. However, since there is some risk of means substitution, restriction of access should be implemented in conjunction with other suicide prevention strategies.

Social workers are expected to play important roles in suicide intervention. Care giving behaviors of medical personnel to suicidal individuals have been reported to be influenced by their own attitudes toward suicide. In this context, only a limited number of studies have examined social workers' attitudes toward suicide. In a study in Japan on 2,999 social workers using self administered questionnaire to explore associations between personal or occupational factors of social workers and their attitudes toward suicide, by applying the Attitudes Toward Suicide Scale (ATTS), to measure attitudes toward suicide, participants with a history of suicidal thoughts had stronger attitudes regarding the right to suicide than those with no history; these attitudes were not affected by a history of participating in suicide-prevention training. The authors recommend that suicide education should incorporate programs directed at altering permissive attitudes toward suicide (Kadaka, et.al 2013).

Perspectives on Suicide

When Émile Durkheim published his classic study on suicide, which sociologically explained an individual event that appeared to depend on personal and psychological factors, he not only contributed to legitimizing sociology as an independent discipline, but also provided the conceptual framework that is still relevant for explaining suicide as a way of dissolving social ties, as shown in his review of this classic work (Durkheim, 1982 p.32). In Durkheim's words:

Rather than viewing suicide only in terms of private events, isolated from each other and each requiring a separate examination, if we consider the set of suicides committed in a given society over a period of time, we note that this total is not merely the sum of the independent units, but itself constitutes a fact that is new and sui generis, with unity and individuality, eminently social in nature (Durkheim, 1982 p. 18).

Three explanatory models namely, the sociological model, which treats suicide as a social fact embodied in a historical and cultural context (Orden et.al., 2010); the psychological model, focusing on subjectivity in the network of intra-inter-trans-personal relations (Orden et.al. , 2010) and the nosological model, which relates suicide to psychopathological alterations in the field of mental disorders, disruptions, or diseases (Myino 2006) are identified as a basis for suicide analysis. The point of departure for the sociological model conceived by Durkheim is the idea that suicide is an eminently social event and should be studied according to the rules of the sociological method. Durkheim sees suicide as linked to forces that transcend individuals, using data to show that its increase is

inversely proportional to the degree of individuals' integration into society, varying according to cultures: "*each people has its own suicide trend*"(Durkheim 1982,p. 50).

The psychological model proposes to link two distinct but complementary areas: clinical psychology. The clinical focus considers psychodynamic, cognitive, existential and systemic studies integrated into the conceptual frameworks of sociology (Orden et. al, 2010). The social focus uses the approach of psycho-sociology a hybrid reference linking sociological and psychological perspectives, taking discourse analysis into account. The psycho-sociological view favors both the social contextualization of individual suicide stories, enriched by the clinical focus, and allows the formulation of analytical categories to find traits that lend unity to isolated cases (Orden et.al, 201).

Although much research on suicidal behavior has been conducted in an atheoretical context, theories of suicide spanning diverse perspectives including biological, psychodynamic, cognitive-behavioral, interpersonal and developmental/systems etiologies have been proposed.

Biological theories propose that suicidal behavior results from bodily disturbances can be caused by a genetic defect, an injury or infection, or a temporary physiological malfunction caused by a current condition and an activating psychosocial stressor (Orden et.al, 2010, Pandey,2002). According to the psychodynamic perspective the role of anxiety and inner conflict, meaning that thoughts and emotions are important causes of behavior and environment and

personal experiences play roles in how the brain functions. For psychodynamics, affective states, desire for escape from psychological pain, existential drives for meaning, and disturbed attachment are the causes of suicide (Brent, 2001).

Cognitive-behavioral theories posit causal roles for hopelessness. For this theory, disturbed social forces, defective thinking and poor problem solving ability are the main causes of suicide. It puts great emphasis on mental processes that we are aware of or can easily be made aware of, as opposed to hidden motivations, feelings and conflicts ((Brent, 2001, Pendy, 2002). The Interpersonal theory of suicide developed by Kimberly et.al also proposed that the most dangerous form of suicidal desire is caused by the simultaneous presence of two interpersonal constructs—thwarted belongingness and perceived burdensomeness (and hopelessness about these states) and further, that the capability to engage in suicidal behavior is separate from the desire to engage in suicidal behavior. According to the theory, the capability for suicidal behavior emerges, via habituation and opponent processes, in response to repeated exposure to physically painful and/or fear inducing experiences.

Each of these theories is able to explain part of the landscape of suicidal behavior. For example, theories on hopelessness are readily able to account for the relationship between hopelessness and later death by suicide, biological theories are able to explain the association between serotonergic functioning and suicide, and family systems theories are able to explain the association between family conflict and suicide. However, individuals who die by suicide present with numerous risk factors, rather than a single risk factor in isolation. Thus, theories of

suicide should be able to account for the diverse array of factors associated with lethal suicidal behavior.

Review of risk factors for suicide by Orden et.al (2010) indicates the most robust support for associations with suicide and mental disorders, previous suicide attempts, social isolation, family conflict, unemployment, and physical illnesses. Thus, a theory of suicide should illuminate how these diverse factors are related to suicidal behavior. Therefore theories must also be able to account for the imprecision of the risk factors listed above each risk factor in isolation is limited as a predictor of suicide and each risk factor has complex relations with suicidal behavior. A comprehensive theory of suicidal behavior must also be able to account for other demographic differences in suicide rates, including that suicide rates vary by gender, age, and culture. One of the most consistent findings with regards to the epidemiology of suicidal behavior is its gender distribution. With the exception of China, male suicides outnumber female suicides in every nation, worldwide (World Health Organization, 2003).

Methods for Suicide Research

Suicide is a complex problem that determined the interaction between various factors: the biological contribution, personal history, family history, circumstantial events, religion, socio-cultural environment, and historical and socioeconomic context. These numerous facets suggest both case studies on the role played by victims themselves in their own deaths and descriptions of historical, economic, social, and cultural factors associated with the context of

occurrence of self-inflicted death, as well as statistical studies of population data contextualizing the problem within the framework of morbidity and mortality.

In relation to this, Minayo et.al.(2006) proposed combined socio-anthropological, epidemiological, and psychosocial perspective, an interdisciplinary and complex research model that examined individual, socioeconomic, historical/cultural, and population data for the study of suicide. Epidemiological analysis of suicide involves as conducting a detailed and in-depth epidemiological study of the suicide mortalities in order to contextualize the phenomenon by investigating socio demographic variables. Socio-anthropological study also involves analyzing the characteristics of the entrepreneurial effects of suicide by investigating its effects on the socioeconomic and cultural life of the society at large.

Psychosocial approach is a clinical and psycho-sociological investigation of suicide by gathering qualitative data over the course of period of time. The study involves a literature review for drafting a psychosocial interview script (Qin et.al, 2003). The focus of this perspective is on the analysis of developmental problems and psychological problems especially that of avoidance disorders on latter life and their impact on suicidal behaviors. Childhood problems, which latter result in egocentric behaviors, stress and are the center of analysis of this perspective.

The Psychosocial Autopsy Script, aimed at a retrospective assessment of suicide cases, and the Psychosocial Harm Assessment Script (PHAS), to gather primary data on suicide attempts (Minayo et al 2005) for an understanding of the

local health system, community services, and public agencies that act in cases of suicide or suicide attempts and to define the psychosocial data collection procedure, aimed at selecting and approaching the families with histories of suicides or attempts, for subsequent interviews. This method is basically concerned with collection and analysis of data from suicide survivors at health care units of community rehabilitation centers. The objective of this method is mainly to measure the extent of individual and social harm on victims and community. Psychological autopsy studies of suicide are in-depth investigations conducted by researchers. A psychological autopsy usually consists of a review of all written case-related materials (police documents, medical records, etc.) followed by an interview with the next-of-kin into the experiences, motivations, and potential presence of a mental disorder of a person who has died from suicide (Minayo, 2006). This is basically a retrospective collection and analysis of qualitative and quantitative data about decedents. The information is collected from records and individuals who knew the decedents.

Research Design and Methodology

This is a cross sectional institution and household based study that was conducted in Addis Ababa, Ethiopia. A combination of both quantitative and qualitative study design was used in this study. For the quantitative method secondary data was collected from Forensic Pathology department at the Menilik II Hospital and Homicide Crimes Investigation Department of the Addis Ababa Police Commission. Qualitative interview were also conducted with experts from the two institutions and close relatives /next of kin of decedents. Data was entered and analyzed using SPSS and STATA software.

The Study Approach

The four perspectives on suicide out lined above, are the basic theoretical underpinnings of this study. Suicidal behavior is the cumulative effects of multitude of factors. The researcher is with the opinion that no single theory is applicable to every case and a single case may be the effect of a combination of these factors. Biological and social conditions such as gender, family conflict drug use, mental illness (biological theory) leads a person to stressful condition that have the effect of diminishing the person's escape potential hence suicide

Therefore, bearing in mind the complex nature of suicide the study was meant to evaluate the relationship between these behaviors and the conditions that lead to suicide. Based the theoretical underpinnings of the four theories of suicide, the study looked into the effects of the bio-psycho-social conditions (mental illness, family conflict, social isolation, stress) on suicidal behaviors. The

psychosocial autopsy method of suicide research was applied in this study as it is best fit for the current study. As data was collected from death registers and information about the decedents was collected retrospectively from families and care givers, the study effectively applied the psychosocial autopsy method of suicide research.

Design

As the objective of the study is to explore the epidemiological as well as psychosocial impacts of suicide, the study design involves a combination of both quantitative and qualitative study design. This is because such a design gives the researcher the opportunity to analyze the association of factors and predictors of suicide using quantitative figures. The qualitative data also help to explore the deeper psychosocial impacts of suicide in the community and to understand societal views towards suicidal behaviors.

In elaborating the use of numbers in social science research Gorard (2004 p.9) stressed the use of quantitative methods to study issues that involve some numbers. Qualitative method is recommended to study ideas that are not previously researched i.e. to explore an issue that is little known (Padgett, 2008, p.15). Therefore, a combination of the two methods is best fit to study suicide in Ethiopia for the following reasons. First there is a system of investigation and registration of suicidal deaths that can be used to analyze the distribution of suicidal deaths by basic socio demographic characteristics. Second individual, family as well as community level epidemiological and psychosocial impacts of suicide are not researched with in Ethiopian context.

Study Setting

The study is delimited to cover Forensic Pathology Department at Menilik II Hospital and Homicide Crimes Investigation Department at the Addis Ababa Police Commission and selected households of people who commit suicide between January 01 and December 31/2013 in Addis Ababa. This is because the two institutions has registers for all suicidal deaths in Addis Ababa and the households were selected based on the information derived from the registers of the institutions. Next of kin of the decedents who were in close contact with the decedents were traced and interviewed for information related to the circumstances of the suicide and other relevant information about the decedents.

Sources of Data

The main sources of data for this study were two in kind; these are primary and secondary sources of information.

Primary sources: Consists of respondents drawn from selected households of decedents who were care givers or cloth relatives of people who commit suicide within the past one year. The procedure of selecting these respondents is outlines in the data collection process below. Experts working in the Forensic Pathology Department at Menilik II hospital and the Addis Ababa Police Commission were also contacted for information relating to the pathological and forensic examination in identifying suicidal deaths.

Secondary sources: The major source of data that was used for the analysis of quantitative data was collected from the registers of two institutions. In addition to this, policy documents, different books, peer- reviewed articles, and other publications were used to supplement the primary as well as the secondary data.

Study Population

In this study, different categories of study populations including registered information of suicidal deaths, close relatives or care givers of the decadents, Forensic Pathology experts in Minilik II Hospital and experts from Addis Ababa Police Commission participated. All suicidal deaths registered by both institutions with in the study period were registered and analyzed for prevalence of suicide by sex, sub-city and means used. Using records of the two institutions helps the researcher to evaluate the completeness of suicidal death registration. Data from the registers were used to study the magnitude of suicidal deaths and the means used in Addis Ababa. Based on the information obtained from the registers close relatives or care givers of decadents were interviewed for information about the life styles, health problems and perceived factors that lead the persons to commit suicide. The information collected using the interviews were used to understand the psychosocial and related factors related to suicide. In order to get more insightful information, Forensic Pathology experts and homicide crimes investigators were contacted for their experience on the efficiency and effectiveness of suicide certification and registration process and their recommendations on the subject matter.

Methods of Data Collection

In this study, four types of data collection techniques were utilized to collect complete data and increase the dearth of information. The methods of data collection include; key informant interview; observation; in-depth interview and document analysis. In this regard, interview guides and observation checklists

were used. All these methods were conducted in Amharic after translating the English version of the tools.

Key Informant Interview: Were conducted with pathologists and forensic experts.

In-depth interview: Interviews were made with next of keen and care givers of decedents who knew the decedents life style in full. In order to make sure that the people interviewed are the ones who have full information about the decedents, the researcher himself was careful in selecting the appropriate respondent. To this effect if the persons who were registered to be relatives were distant ones or people who did not know about the decedents, close relatives of people who are very familiar , usually family members (spouses, mothers, sisters, brothers, sons and daughters), were selected. When the selected respondents refused to participated the received thanks and other respondents were substituted.

Observation: the researcher makes note of all events and circumstances while conducting the key informant and in-depth interviews.

Document analysis: using information check list all available data were recorded from the death registers of the two institutions. In order to make the record complete and accurate trained data collector was used to verify the data by consulting the experts working there. The researcher himself trained one data collector about the objectives of the study and the list of variables to be recorded in the checklist. He was also trained on how to make the record complete by referring to the registers of the two institutions.

Data Collection Process

With regard to the data collection process, the researcher primarily contacted the Homicidal Crime Investigation Department at the Addis Ababa Police Commission and Forensic Pathology Department at Menilik II Hospital to discuss about the registration and access to records of suicidal deaths from their registers. Data about all suicidal deaths that occur within the study period were collected by a trained data collector using a structured format that was prepared for this purpose.

Data was collected between March 15 – April 25 /2014. In-depth interviews were conducted with care givers or next of kin of the decedents. Of the total suicidal deaths registered, about 38 deaths that occur between November 01 and December 31/2013 were selected for in-depth interviews. This has double advantage for the research. On the one hand it avoids recall bias as the respondents could remember the circumstance of suicidal event and all information relating to this. On the other hand, it avoid refusal as two months is socially and culturally acceptable mourning time. 17 respondents from 12 household participated in the interview. When the information collected reach the level of saturation, the researcher convinced that the study objectives were answered and recruitment of respondents was finalized.

Based on the information recorded from the register the researcher himself traced households of the decedents; select appropriate respondent for in-depth-interviews. Randomly selected respondents were contacted and appropriate ones were then selected by asking the relationship they had with decedents and the level of knowledge they have about the decedents.

All respondents were informed about the name and address of the researcher, the objectives of the study, how information about the deceased and themselves was obtained, how they are selected for the interview and the duration of interview and how information collected this way will be used. They were also told about their rights to refuse and terminate the interview at any time.

After securing informed consent, they were asked about the relationship they had with the decedents, information related to the health, education, and death of the decedents. They were also asked about the reasons of suicide, their personal opinions about suicide and prevention of suicide. Finally the researcher thanked every respondent and asks their permission to contact some other time if there is a need to collect additional information. Should they require additional information or any inquiries they were told to contact the researcher and /or his advisor using the address in the information sheet distributed to them.

List of Variables

Outcome Variables	**Independent variables**
Suicide means	Age
Psychosocial impact	Sex
Education	
Marital status	
Religion	
Employment condition	
Illness	
Life style (alcohol, chat, smoking)	
Date of death	

Data entry and analysis

The process of data entry began after the completion of the secondary data collection. The quantitative data was entered using SPSS Version 20. Data was analyzed using SPSS version 20 and STATA Version 11. Descriptive statistics using frequencies, proportions and tables were used to present the results.

All qualitative in-depth interviews were taped, transcribed and translated. The duration of each interview was 35-55 minutes. All field notes were first checked for accuracy and completeness, then coded and recorded according to the themes of the study. Then, data was typed using word processor, and then stored and categorized into major themes for content analysis- the major analysis for qualitative data. Content analysis was made by describing the major findings of the fieldwork, as per the themes of the study.

Using psychosocial impact of suicide as a unit of analysis, responses of the qualitative interviews were coded according to four variables, which correspond to the four research questions of the study. First, to study the most frequently used means of suicide, responses were coded as means and the categories were hanging, drowning, and poisoning and fire arms. Second, to explore reasons why people commit suicide the responses were coded as reasons and coded as known and unknown. Following this, the codes were further categorized into five categories. Third, to explore the impacts of suicide the responses were coded as impacts and categorized into individual and community level. A fourth variable coded was societal views about the possibility of preventing suicide and the codes were prevention and the categories were yes and no. Finally, themes were identified

based on study objectives and the coded and categorized data was interpreted to reflect findings.

Ethical Considerations

The proposal was submitted to the ethical review committee of the school of social work, Addis Ababa University. Same was reviewed and approved by the ethical review committee at the Addis Ababa Health Office. Following the approval by the ethics committee the researcher secured a letter from the school of social work and Addis Ababa health office addressing the two institutions and individual respondents. The researcher then followed logical procedures in every stages of data collection.

Most importantly, the study subjects were introduced about the purpose of the study. Informed consent was obtained from all study participants and responsible individuals from the institutions. Respondents of the qualitative interviews were informed about the voluntary nature of their participation in the study and their right to refuse, terminate at any stage of the interview and not respond to questions that they did not want to give opinions.

In addition, all the respondents were told that their responses are completely confidential. Theirs and decedents names will be written on the report and will never be used in connection with any of the information they will tell. However, providing well organized and detail orientation on the ultimate objective of the study will be used as a proactive remedy for the aforementioned problem not to happen.

Findings of the Study

Socio-Demographic Characteristics of Study Participants

A total 205 clearly identified suicidal deaths, that occur between January 01 and December 31/ 2013, were registered form the registers of the two institutions. Based on their experience on death registration investigation and certification, six experts from the two institutions were selected for key informant interviews (table 1).

Table 1: *Profile of institutional key informant interview participants*

Interviewee code	Age	Institution code	Responsibility	Education
01	32	01	Department Head	1st Degree
02	45	01	Morgue Technician	Certificate
03	33	01	Translator	Diploma
04	42	02	Head Investigator	Diploma
05	27	02	Investigator	Certificate
06	26	02	Investigator	Certificate

Institution Code:

01: Forensic Pathology Department at Menilik II Hospital

02: Homicide Crimes Investigation Department at the Addis Ababa Police commission).

Based on the records from the death registers of the two institutions, randomly selected 12 decedents (3 females and 9 males), who committed suicide between November 01 and December 31/2013, were used for in-depth interviews (appendix 3). Close relative and care givers of decedents were contacted for in-depths interviews (appendix 3).

Suicide Investigation, Registration and Certification in Addis Ababa

Reporting, Investigation and Registration

All accidental cases that happen in the city are regularly reported to the police. For deaths that happen within households, most of the time, family members, neighbors or relatives used to report immediately as they occur. According to respondent 04, regular and timely reporting of accidental deaths by the community serves two purposes: First, family members and others, who were around, want to make themselves free from criminal responsibility. Second, they want the death to be investigated and clearly identified. For deaths that happen outside home (bushes, rivers, bridges, street etc), any by- passer, who has seen the dead body will report. Sometimes police officers themselves may come across while they are moving for routine activities (respondent 04).

The Homicide Crimes Investigation Case Team at the Addis Ababa Police Commission is composed of five investigators and one team leader. Upon receiving reports about accidental deaths, the office used to send a team of investigators to register all physical and social evidences about the death. Taking pictures; observing the area for any signs that are relevant to the investigation; looking for written evidence that imply self harm; observing the area for any signs of fight or foot prints and looking for additional information that indicate homicide are some of the activities the investigating team conducts (respondent 04). Once these forensic evidences are documented, the team also talks to the relatives or other people who were around for additional information related to the lifestyle and social condition of the deceased. At this juncture it is wise to question the completeness of death reports as there may be deaths that are not

reported to the police. Especially, when it comes to suicide, there may be a number of cases that may not be reported to the police for different reasons. In replying to this question, respondent 04 said:

> *As suicide is criminal act according to the Ethiopian Penal Code, the community wants to protect itself from accusation and criminal responsibility. On the other hand, it is public duty to report crimes. Moreover, most of the family members want the death to be investigated as they think that their relative is killed by someone. Therefore, as far as my experience is concerned, the number of accidental cases that are not reported is insignificant.*

The next step of the investigation process is sending the dead body to the Forensic Pathology Department at the Menilik II Hospital for pathologic examination and death certification. Even though police has conclusive evidence that clearly indicates the cause of death, it has to wait for forensic pathology report in order to assign cause of death. Based on pathologic report the team will certify the death. If it is proved to be suicide, the investigation will stop and family members or anybody interested will be told about. If there is any indication of homicide the team will forward the case for criminal investigation case team (respondent 04).

At this point, I was curious which evidence is conclusive, if the evidence from police investigation and forensic pathology report is discrepant. Given his experience, respondent 04 told me that there are instances, whereby, the two reports contradict. However, as the only forensic pathologic examination center in

Ethiopia and equipped with scientific instruments and experts in the field, the evidence from forensic pathology is conclusive one. It has also legal mandate to certify deaths.

After the pathologic evidence is submitted to the department, police has well documented registration of all criminal and accidental deaths based the causes of death. As I observed from the registers suicidal deaths are registered under the headings hanging and strangulation, self harm (for bullet injury), drowning and poisoning. However, it may be difficult to trace actual suicidal deaths from the registers. Police may not also be able to identify all suicidal deaths with the current context. For instance, there are deaths registered under electric shock, fall from a building, drowning and car accident. As there may be instances where such deaths could be accidental or intentional it is difficult to identify intentional self harm from the accidental ones. Therefore, even thought accidental deaths are reported, investigated and registered the current system failed to capture all suicidal deaths.

Forensic Pathologic Investigation and Death Certification

The only forensic pathology department in Ethiopia, located at Menilik II Hospital is providing medico legal services for the entire nation. Services provided by the department include:

- Post mortem examination: examination of the dead body for identification of causes of death as requested by police.
- Medical certification: certification of deaths for medico legal and criminal justice administration purpose

- Medical board translation: translating medical board certificates

Dead bodies come from all over the country with police officers along with the required formalities. The identified and labeled dead body will be submitted for pathologic examination. The department has 2 pathologists (both Cuban), 4 morgue technicians and 3 translators. Every day, they conduct post mortem examination in the morning and in the afternoon they translate and provide death certificate. All dead bodies coming to the department are examined on daily basis. For a dead body to be examined and certified it will take a maximum of 16 hours. Once investigation is done, the dead body will be delivered to the decedents' family and the certificates to the requesting police officers. Finally all investigated deaths are registered on their master register. A separate register is also available for registering people who received the dead body.

Respondent 01 is the head of the Forensic Pathology Department at the Menilik II Hospital. According to him, the department is working tirelessly to certify deaths, especially criminal ones, for the proper administration of justice. In addition to this, the department is also reporting to the ministry of health regularly about the distribution of accidental deaths so that it will be used for public health policy formulation.

As dead bodies come to them through police, they did not have information about the death prior pathologic examination. Therefore, they identify deaths based on their causes of death. The pathologists and morgue technicians have their own standard procedures of examination. Once the investigation is done, the translators

are responsible to translate the English version of the certificates to Amharic to be used by the requesting police.

Suicidal deaths are identified based on their means as strangulation, poisoning and using firearms. These conditions are easy to identify by the pathologists and morgue technicians. While asking about how they identify strangulations as suicidal and homicidal, respondent 01 told me that it is by carful observation of the skin over the neck. He said*: "If it is homicidal it will form circle and if it is self harm (suicide) it has the shape of letter 'V' at the joining place of the rope. Therefore, they assign 'Tanko' for homicidal hanging and 'Teseklo' for suicidal hanging"* (respondent 01).

Another point that interests me was the issue of identifying intentional self harm accidental deaths due to car accident, electric shock, drowning and falls from a building from negligent and homicidal ones. Apart from investigating the physical conditions of the dead body, the pathologists no way can detect the mental conditions of the deceased during the occurrence of the death. Therefore, they could not able to identify intentional and accidental deaths due to the above mentioned conditions. Based on this information, like that of police investigation the pathologic one may also miss some suicidal deaths.

Epidemiology of Suicide in Addis Ababa

Suicide records from both institutions (forensic pathology and homicide investigation department) indicate that within 12 months period (January 01 to December 31/ 2013) about 205 suicidal deaths are reported, investigated and registered in Addis Ababa. Of which 58 (28.3%) are females and the remaining 147(71.7%) are males (table 2). This figure does not include additional cases that

are registered under the title of electric accidents, car accidents, falls and drowning out of which few may be suicidal deaths.

Table 2: *Suicidal deaths in Addis Ababa (January 01-December 31/2013)*

	Frequency	**Percent**	**Valid Percent**
Female	58	28.3	28.3
Male	147	71.7	71.7
Total	**205**	**100.0**	**100.0**

Due to limitations of records to include important socio-demographic information about decedents, it was not possible to describe the distribution of suicide based on age, religion, ethnicity, educational status and marital status. Owing to emergency nature of the recording and registration; inaccessibility of information and work load on the experts; both officials told me that they did not give attention to these important variables. However, they do understand the importance of recording these important variables and may consider making use of the records complete in the future.

Addis Ababa city administration is divided into 10 administrative sub-cities. When the distribution of suicide is analyzed based on sub –cities, the highest record of suicide is recorded in Bole Sub-city contributing to 28 (13.7%) suicidal cases followed by Yeka and Addis Ketema, each contributing to 26 (12.7%) suicidal deaths. The lowest record is from Lideta, Gulele and Arada , each equally contribute to 12 (5.9%) suicidal deaths. 2 persons died in Prison Administration (Table 3). As I personally observed from the registers of both institutions, there are some records the identities of decedents are not identified. Such records are reported under the sub-cities where the dead bodies are found or reported.

Table 3: *Distribution of Suicide in Addis Ababa (January 01-December 31/2013)*

Subcity	Frequency	Percent	Valid Percent
Addis Ketema	26	12.7	12.7
Akaki Kality	15	7.3	7.3
Arada	12	5.9	5.9
Bole	28	13.7	13.7
Gulele	12	5.9	5.9
Kirkos	21	10.3	10.3
Kolfe Keraniyo	24	11.7	11.7
Lideta	12	5.9	5.9
Nifas Silk Lafto	27	13.2	13.2
Prison	2	1.0	1.0
Yeka	26	12.7	12.7

Commonly Used Means of Suicide in Addis Ababa

As to the means used to commit suicide, table 4 is summary of that shows the most commonly used means of suicide in Addis Ababa. Consultation with the registers of both institutions and discussion with officials working there indicates that most commonly used method is self hanging followed by poisoning.

Self hanging: This is the act of killing oneself by suspending or fastening own neck with something that held up from above without support from below. Data from both institutions indicate that the majority of suicidal deaths, 191 (93.2%) are due to self hanging (table 4). As discussed above, pathologic examinations effectively identify self hanging from homicidal hanging by carefully observing the shape of the mark over the skin of the dead body around the neck. People use different materials to hang up themselves. Rope, linens (T-shirts, bed sheet) and shoe tying threads are some examples. The materials used to be hanged-on are trees, roofs, bridges, fences and poles. According to respondent 04, most commonly, people hang themselves inside their home and in bushes.

Poisoning: this is means of killing oneself using poisonous substances. Rat killing poisons, insecticides, herbicides, berekina and drugs are commonly used poisons. Records from forensic pathology indicate that only 8 suicidal deaths are recorded due to poisoning in Addis Ababa over the study period. Surprisingly, a number of suicidal deaths due to poisoning are from Adami Tulu woreda, East Shewa zone. As the study is limited to Addis Ababa City Administration, the researcher did not try to look into the socio demographic or psychosocial condition of these decedents.

Drowning: this is dying by immersion in water. This method is not common in Addis Ababa. Only 4 cases are reported during the one year period.

Gunshot: killing oneself using gun fire. 2 deaths are registered using this method. Unlike other means that are difficult to identify between intentional self harm, negligent injuries and homicides, both respondents told me that by careful inspection of the site of injury and the entry and exit direction of the bullet they can easily identify self harm from homicide.

Table 4: *Means of suicide in Addis Ababa (January 01-December 31/2013)*

Means	Frequency	Percent	Valid Percent
Self Hanging	191	93.2	93.2.
Poisoning	8	3.9	3.9
Drowning	4	1.9	2.0
Gunshot	2	1.0	1.0
Total	205	100.0	

Why do People Commit Suicide?

This section is summary of the finding from qualitative interviews I had with the experts from forensic pathology, investigating police officials and in-

depth interviews with next of kin or care givers of people who commit suicide within the study period**.**

Mental innless, emotional upset, stress due to life challenges (financial and health problems) and poor social relationship are the possible causes of suicide according to the respondent I talked to. Majority of the respondents are of the opinion that it is difficult to judgmentally attribute reasons for committing suicide as the real cause is known only to the person who commit suicide. However, by probing and asking questions related to the life styles of people who commit suicide, it was possible to pin point the possible reasons why they commit suicide. In the following section I will try to summarize the findings to this effect based on the categories made using content analysis.

Mental Illness:

Among the 12 interviews I had with close relatives or care takers of decedents 4 decedents had history of mental illness. The other two were reported not to have history of mental illness. However, during probing they had clear signs and symptoms of mental illness hence they have undiagnosed mental health problem. Therefore, in this study about 50% of suicidal deaths are due to mental illness. Respondent 04 and his colleagues also agree that while interviewing cloth relatives of decedents during suicide investigation, majority of suicidal deaths are due to mental illness. The following case stories are some manifestation of relationship between mental illness and suicide.

1. A 70 years old male decedent was reported to be healthy by his daughter, respondent and her husband, respondent. However a month before his death he

was requesting his daughter to take him to Amanuel Hospital as he had night mare, sleep disturbance and feelings of frustration.

2. A 38 years old male decedent 178 has died by hanging himself in a bush. Both his mother and sister, respondents 178/2 and 178/3, claimed that he had no history of mental illness. When replying to question as to any history of visiting holly water or night mares, the mother said:

> *He visited holly water three years back and had crying and told to have 'evil eye' (yesew ayen). Sometimes he used to wake up in midnight and run away to the place he committed suicide saying that 'people are calling me'. He was saved by the assistance of family members and neighbors* (respondent 178/2)

3. Decedent 143, 38 years male was known mentally ill patient for the last 17 years. He was on regular medications attending his psychotherapy at the Amanuel Hospital and private clinics. He was electrical and computer engineer working for national as well as international companies. While he was under strict follow-up by his sister, respondent 143/1, who is the only care taker for the last 17 years, he committed suicide by hanging himself in a tree while she left home to buy his medications.
4. Decedent 162 was taken to religious institutions following his mental health problem. Instead of visiting health facilities the family preferred spiritual treatment. According to respondent 162/1 he was recovering after a month follow-up on the prayer and other religious rituals. He attempted suicide three

times within a month and then hanged himself over the roof of his bed room while the care giver was out for shopping.

5. Despite his mental problem and addiction to chat, cigarette and hashish, decedent 203 never sought psychiatric help. Both his wife and sister (respondent code 203/1 and 203/2) were convinced to attend religious prayers and care by spiritual fathers. They were convinced that the reason for his mental disturbance is addiction. After many years of follow- up, he did not get improved. He attempted suicide more than five times using different methods (bleeding himself, hanging, falling from bridges). He used to write poems about his funeral and the way people chat about his death etc. Finally, hanged himself with a rope on his house while the family was out over night.
6. A 28 years old decedent 161 was known mentally ill patient on intermittent psychiatric treatment. Often times, he was advised to take his medications regularly. However, he did not want to take the drugs fearing the side effects. One day he was complaining about the side effects of the drugs. Then died by hanging himself inside a bush.

Emotional Upset and Stress

Based on his experience as criminal death investigator and team leader of the homicide crimes investigation at the Addis Ababa Police Commission, respondent 04 argues that emotional upset in relation to poor communication between family members; unexpected loss (person or material); health problems and similar situations are common reasons for people to commit suicide. He said:

> *To tell you my experience I know a young girl who committed suicide leaving a message, the content of which is, a sort of regret*

about having sexual relationship without the knowledge of her mother. The thing is, the mother saw a picture the girl had with a man. She told to her sister who is married and living in Addis about the picture. While the girl come to visit her sister in Addis her elder sister angrily interrogated the girl if the mother's claim was right and she had sexual relationship with a man. Soon after their communication she hanged herself leaving a message stating that she did wrong disrespecting her mother and her sister. I did not see the reason her sister and mother was blaming the girl for she did what everybody including themselves are doing.

Similar experience is also raised during in-depth interviews. The following cases are some manifestations of suicide due to emotional upsets and poor stress tolerance states:

1. Decedent 180 is a 70 years retired father living in Addis with his family. He has a beautiful villa to live in. His six children are well –to-do living home and abroad. His little daughter, who is also employed for an international NGO, is living with him. As the village road is constructed communally by the villagers, the family is required to contribute a certain amount of money. He asked his daughter to pay the contribution. As she was in short of money that time, she was not able to pay that day. He complained about his retirement went out to the bush and hanged himself (respondent 180/1).
2. Decedent code 119 is a 50 years old lady. While she was working as housemaid for the last 25 years, her former employers are her close friends. Following her

son's graduation she stopped working as housemaid and started living with him. While she was visiting her former employers, she had minor disagreement with them, the content of which is not clear for her son, respondent 119/1. Immediately following their conversation she left home and died by hanging herself in a tree.

Stress Related to Life Challenges

In sharing his life experience in this respect, respondent 04 is of the opinion that most family level disagreements are results of poor communication, financial problems in relation to diverse economic problems and degradation of societal norms and cultural values. He states that*:*

> *Disagreements between spouses may result from financial problems, luck of mutual trust, health problems and other related life challenges. Life has never been easy. While investigating suicidal deaths, we come to understand that social problems of unemployment, high cost of living and hopelessness are the major causes for misunderstanding between family members* (respondent 04).

Similar explanations are raised by respondents for this qualitative study.

1. Respondent 205 has seven children, all of whom are born out of wedlock and from seven different mothers. Except respondent 206/1 the other six are not accorded acknowledgement by him. As he had no child from his legal wife, he used to visit different women for the sack of having a child. However, he could not have sustainable sexual relationship with neither of them. Moreover, he did not have good relationship with his children, family and relatives. Following his

displacement from his kebele owned house (as fraudulently his wife disowned him), he used to live in a rented house working his usual construction work as daily laborer.

He was chronic drunkard and promiscuous according to his daughter and child-in-law (respondent 205/1 and 205/2). He had the opportunity to have good money and house during his young ages but that chance was abused by him.

Comparing his life with that of his friends and relative, he has been upset and depressed often times. His children grew up to be well –to- do adults and some of them are out of Ethiopia for work and business. He was not also happy with the fact that he did not acknowledge them all. In relation to the failures he had, life challenges he was experiencing and physical and mental debilitation he had, he used to be intoxicated with alcohol. Respondents to this interview argue that the reason why he committed suicide is stress due to life challenges.

2. Decedent 201, who comes to Addis from his rural village in Gurage Zone before 12 years, was working on petty trade of selling lottery tickets, socks and clothes. According to his brother, his plan to have his own boutique could not be realized as he could not make business as planned. Before a month, he discussed with his brother about having money for establishing his own business. Accidentally, he lost some money that was meant to be used for the new business. Finally, he committed suicide leaving a message stating that he was not sure to realize his dreams as the ever increasing cost of living and the requirement of having more money which he cannot make it as planned are his main challenges.

Poor Social Relationship

Another important factor that may contribute to suicide is poor social interaction and negative relationship with friends, family and relatives.

1. As described by respondent 205/1, the role of social ties and positive relationships with close relatives is very remarkable. As described by her, decedent code 205 has no communication with his family including his brothers and sisters who are living in Debrezeit area. He was only communicating with his daughter and his friends who were also living and working together. She said:

   > *Your current condition is predictive of your future. During your young ages you have to be good both to yourself and family. A person who is strong both financially and spiritually will never commit suicide. For me suicide is the result if frustration, poor spiritual strength and hopelessness. In other words if you are not good to your family, and children you will end up in mental confusion in relation to regret social isolation and loneliness. Religiously people who commit suicide are in conflict with God hence they are going to the hell* (respondent code 206/01).

1. Decedent code 203, a father of two and mentally ill, was socially isolated from his family and relatives other than his friend who share same substances. However, he had strong affection with his two daughters. He was irritable promiscuous and drunkard who often times blamed by his wife, sisters and religious leaders. He preferred reading and writing rather than chatting with people. He was in persistent disagreement with his wife and sister in relation to his abuse of substance. Even

thought he was employed he did not contribute for family expenditure. The couple were quarreling even in front of their children.

Psychosocial and Economic Impacts of Suicide

In-depth interviews I had with close relatives and/or care givers of people who committed suicide within one year indicates that there are untold impacts of suicidal deaths on family members, friends and community members. In this section I will try to summarize these impacts based on the case stories and my personal reflections. The following conditions are major sources of psychological impacts:

I. The fact that most suicidal deaths are committed following minor social problems that lead to emotional upsets.
II. Most of the time people who commit suicide had undiagnosed mental health problems that could easily be treated
III. Relatives feel guilt for their misunderstanding of the behaviors of their family members
IV. Suicide is considered as sin for disobeying to divine rules and people did not want their relatives go to hell.
V. Some suicidal deaths are preventable by removing or avoiding means.
VI. Most of the time close relatives are the ones who, for the first time, observe the dead body hence they found forgetting the situation difficult.
VII. Naturally loosing loved one is painful

The following cases are manifestations for the psychological impacts of suicide:

1. The day decedent code 203 hanged himself, respondent 203/2 and their two daughters were attending a family ceremony at their grandmother's house. As

usual, he was not willing to join them hence they all spend the whole night there. Early in the morning, they come along with one of her brother. When they open the main gate of the house, the little child was the first to see her father's dead body. Running back to her mother she told that' *dad is praying*'.

Despite the fact that deceased was addicted to drugs and in continuous disagreement with his wife, respondents 203/1 and 203/2 witnessed that he had strong affection with his children. The same is true with the kids. Both love their father more than their mother. Therefore, both did not forget the situation and used to cry remembering the care he was providing to them. His wife was also in tears while telling this story. She said:

> *Whatever disagreement we had, I will never forget the good things we had together, especially at the beginning on our love. It has been long since we meet and I will never have someone like him. As my first love we had fantastic things together during our teenage year"* (respondent 203/2).

For her taking care of and reassuring the children without him is really difficult. His sister, respondent 203/1, is also suffering from luck of sleep after the death of her only brother. The most challenging condition for them is the situation of his death and the presence of both kids while the body was taken out. She will never forget this condition. As to the economic burden, both respondents argue that the family will not suffer from economic loss due to his death. Rather, the wife will have free time to work on her petty trade and manage the upbringing of her kids.

2. Based on my personal observation, respondent 178/2 is suffering from mental illness following the death of her only son. She had flight of ideas, crying and failure to concentrate on ideas. During interview, she was talking about unrelated things. For instance she said: "He *was beating me. Why not, because he is my only son. He beat me because he loves me.*"

   I was also told by her husband and daughter she attempted suicide by running to a fast driving car. She is now and then complaining on God for taking her only son.

3. Respondent 119/1 is the only son of deceased code 119 who was dedicated to bring him working as housemaid for his father had died during his childhood. Following his graduation from a university, they started living together quitting working as housemaid. Now respondent 119/1 is working for a big private company as Hotel Manager earning very good salary. His future plan was having a family of his own and establishing business for his mother in return to the suffering she had while upbringing him. However unexpectedly he lost his hope. Swiping his tear for his eyes, he said:

   > *She paid a lot to up bring me. She was socially and psychologically strong mother. It is not easy to raise a child without the support of his father and relatives for a mother who works as housemaid. Her worry was to feed me rather than herself. My dream was to make her respected lady. Her death was just two year after my graduation and employment. Our future was bright but everything becomes dark for me. My sorrow got worse when seeing her*

mother and father. Both are alive and healthy. She was planning to take me there and introduce me with her family (respondent 119/1).

4. Among the family members I interviewed respondent 143/1, sister and care giver of decedent 143, is the one who is in serious health problem. She always cries in between our conversation. Sometimes she talks loud. As she saw the body hanged in the tree, she suffered a lot remembering the situation. She changed the main gate of the compound not to see the place where he was hanged. According to some neighbors and family members she could not recover from sorrow. She said to me*:*

   He is my little brother. We two had special communication and memories. He left me alone. It is for him I forget everything. I had the opportunity to be employed and married but as I am the only care giver for the last 17 years, I left everything for him. However God did not consider my labor and prayer. The good thing is his mother did not know what is happening as she is not aware of everything due to her illness (she is suffering from Parkinsonism) (respondent 143).

5. Athlete and student, decedent 192 was born in West Shewa Addis Alem woreda. She was living and attending her education with her brother in Addis. She was among the best performing students as demonstrated through her performances in achieving the best performers' award five times. Following matriculation, she scored very good grade. As she was assigned at the department she did not want to be, she joined private university to attend her higher education. For a reason not clear to the respondents, she committed suicide by hanging herself.

Respondent 192/1 and 192/2 were in tears while telling me about her death. Her descent character and excellent performance at school coupled with very good personality make them really sad. They regret for not sharing her problem as they were living in another sub-city. According to them their brother, she was living with, forbid her to meet with other people including her brothers.

6. In explaining the psychological and social impacts of the death of his father respondent 180/1 was really in deep sorrow. If it was not for the sake of mere cooperation for the researcher, he did not want to remember the situation of the death of his father. Following the disappearance of his father from home the whole family was dispersed throughout Ethiopia looking for him. He personally visited different monasteries and holly places thinking that he left there as usual. He spent days and nights without eating and drinking. It was disaster for the family to hear the death of their father. What makes their sorrow worse was the fact that it was suicide and the body came after 20 days. While he was telling about the story he was not able to control his tears. He said:

> *Most of the time males love their mothers more that their fathers. Mine is different .Even though I love my mother my affection is tilted towards my father. The same is true with my sisters and brothers. My little sister considers herself as the cause to the death of our father and she is always crying. We reassured her and religious people also helped her a lot. But still she could not be reassured. As death is natural it would have been better for*

us if he had died due to illness. My mother is also in deep sorrow (respondent 180/1).

As to the economic burden, respondent 180/1 is of the opinion that more than economic one they lost the social value of their father. He was their representative and symbol of identity at social gatherings. Almost all respondents to this research were of the opinion that addition to psychological problems they are facing; they also miss the social values of their relatives. On the other hand, they argue that they are not facing any economic problems in relation to the death of their relatives. On the contrary some of the decedents were economically dependent on the rest of family members.

Societal views towards Suicide

Reasons for committing suicide

The reason why do people commit suicide is a controversial issue among the study participants. There were diverse views towards this issue. Some respondents say that the reason behind suicide is known only to the people who commit suicide as they are the only ones who know their internal motives and desires. According to respondent 201/1 nobody knows why their brother killed himself. Some respondents also share his opinion.

On the other hand, respondent 04 and his colleagues are of the opinion that most suicidal deaths are due to psychosocial and economic problems that happen between family members. Emotional responses to minor disagreements, misunderstanding and failure to solve problems through open discussion are major causes. Likewise some respondents also share this latter opinion.

Some respondents also relate suicide with mental illness. Respondent 143/1, sister of decedent code 143 told me that mental illness is the main reason for suicide not only for her brother for others too. She Said:

> *People who are mentally ill could not control their thoughts. The spirit will manage their soul and give order to do whatever it want them to do. It may order them to kill people, damage furniture or kill themselves. I was told by the psychiatrist most of the time they kill loved ones and he told me to take care of him* (respondent 143/1).

Respondent 162/1 also shares this idea in discussing her experience from her father's death. According to her, decedent code 162 attempted suicide three time within one month for he was ordered to do so by the spirit.

Religious views towards suicide

The respondents to these interviews are members of the three major religions (Orthodox Christianity, Muslim and protestant). Almost all respondents argue that suicide is criminal act on behalf of God. Respondent 01, head of Forensic Pathology Department at Menilik II Hospital told me that:

> *Both the soul and the flesh are created by the almightily God. There is time to take every body's soul and flesh as planned by the creator itself. God gave everybody the power to make calculated decisions. Killing oneself amount to interference with the power of God. It is clearly stated in religious doctrines that one who kills himself will go*

> *to the hell. One who did sin will have time for confession and make peace with God. But if one kills himself, it is death to both the spirit and the flesh*" (respondent 01).

Similar arguments were also raised by other respondents.

If Suicide could be Prevented

Responding to my questions if suicide could be prevented at the family and community level, the responses fall in two categories. The first category of respondents argues that suicide is something that is performed suddenly without the knowledge of family and friend. People who commit suicide most of the time did not share their ideas and we did not know their reasons. Therefore it is not possible to prevent or control suicide be it at community of family level. The second category of respondents argues for the possibility of preventing suicide at community or family level. Their assertions are based on the following reasons:

1. Most of the time suicide is the result of individual and family problems. Open discussion between family members, social education about the causes and possible solutions for suicide and religious education are possible solutions.
2. Mental illness is another reason for suicide. Timely and appropriate treatment and psychotherapy for mentally ill patients helps a lot to prevent suicide. Avoiding negligence and marginalization of mentally ill patients and strengthening the capacity of mental health institutions is also proposed as means for community level prevention of suicide.
3. At household level avoiding the possible methods of suicide is also another alternative preventive measure.

4. Most respondents stressed that religious institutions are duty bound to advance religious education among their followers so that they could know the doctrinal philosophy of their respective ideologies and prevent suicide.
5. Some also raised the role of the media in providing social education to the effect of maintaining social norms, cultural values and close assistance between family members. Advancing open and transparent discussion between family members is also raised as important remedy. The *erke maed* radio program by the Fana Broadcasting Corporation was stated as one best practice.

Discussion of Major Findings

Suicide Epidemiology

The word epidemiology is defined as the science and practice which describes and explains disease patterns in populations, and puts this knowledge to use to prevent and control disease and improve health (Bhopal 2012). The central paradigm of epidemiology is that patterns of disease in populations may be analyzed systematically to provide understanding of the causes and control of disease. The key strategy of epidemiology is to seek out the differences and similarities in the disease patterns of populations to gain new knowledge. Most epidemiologists are interested in health but study it indirectly through disease partly because of the difficulty of measuring health.

As a big social and health problem affecting the most productive age group and the elderly at the extreme, suicide deserves epidemiological study. Like most developing countries, suicidal deaths in Ethiopia, is increasing through time. The rate will be expected to grow in line with the current transformation and rapid urbanization.

As the capital city of Ethiopia, Addis Ababa is under infrastructural development. The capital is known for high rate of internal migration, unemployment and modernization. There are also a number of socioeconomic problems that are highly related with increase in suicide. The current study is pioneer in providing insights about suicide in Addis Ababa. Further studies evaluating the deeper causes and actual problems related to suicide epidemiology are recommended.

Worldwide, suicide is major social and health problem amounting to about 2% of total deaths affecting the productive age group and the elderly at the other end (WHO, 2011, Golmirzaei, 2009, Patton et al., 2009). The current study is also in line with these worldwide findings. As death registers at the Forensic Pathology Department did not include basic variables such as sex, age and education, decedents were randomly selected. Among the 12 decedents randomly selected for psychosocial autopsy interview 3 were elderly and the remaining 9 were between the age of 21 and 51. A retrospective (8 years data from 2002-2010) analysis of mortality patterns from communicable and non communicable diseases in public and private hospitals of Addis Ababa indicates that of the total 47,153 deaths 893 (1.9 %) were attributed to intentional self harm (Misganaw et.al. 2012). This means that annually about 112 suicidal deaths were registered in Addis Ababa.

The current study also proved that within the last year, about 205 people are died due to suicide in Addis Ababa. This indicates that suicidal deaths are increasing in Addis Ababa. In developed countries, in spite of advances in clinical, scientific and policy efforts aimed at improving methods of predicting and preventing suicide , the rates of suicidal thought and attempt have greatly increased considerably(Seghatoleslam, et.al.2012) **.** The increase in the number of suicidal death in Addis Ababa may be attributed to a number of factors. Strengthened the system of registration, the emergence of socio- economic factors may be some examples.

Within the context of the European Alliance Against Depression (EAAD) project, an international partnership of 16 European countries, hanging was found

to be the most frequent means of suicide (49.5%), followed by poisoning by drugs (12.7%), jumping (9.5%), firearms (7.6%), poisoning by other means (5.1%), jumping or lying before moving object (5.0%), drowning (4.2%). Other methods accounted for 6.3% of remaining suicides (Varnik et.al, 2008).

A number of factors may influence an individual's decision regarding choice of the method in a suicide act. Gender differences may play an important role. Females tend to use less rigorous means while males more often commit suicides. Indeed, men more often recur to violent and highly lethal methods, and this fact has been hypothesized as the cause of higher rates of completed suicide in males than in females in all European countries (Varnik et.al, 2008). The findings of the current study seem almost similar with this study. Hangings being the major means used followed by poisoning and drowning, majority of suicidal death are among males. However, the means used in the current study are not diversified and hanging constitutes more than 90%.

According to WHO (2011) report, in low and middle income countries, lack of knowledge and absence and /or fragmented nature of proper death registration and certification are the major problems for suicide statistics. In some countries data on intentional self harm may be included within an aggregate category of external injuries. This makes the distinguishing suicide from other accidents or homicide difficult. In some other countries registration of suicide faces problem of including important variables such as sex, age and religion. These conditions are clearly observed in our suicide registration system. Intentional and negligent cause of death due to car accident, fall, electric shock and

drowning are not identified. Important variables such as sex, age, ethnicity, educational status, marital status etc are not registered hence it is not possible to have better information as who died from what. The two institutions are registering death for the purpose of criminal justice administration. Therefore, information they register are meant to serve their purpose. Rather than the decedents they have more information about the persons who receive the dead body.

Reasons for Suicide

A number of socio economic factors including mental illness, social isolation, family conflict, unemployment, physical illnesses, economic constraints and educational failure contribute to suicide (Kimberly et.al, 2010, Nazarzadeh et.al, 2013). Based on the in-depth interviews, I had with cloth relatives of decedents and experts working in the two institutions, the current study revealed that the above mentioned factors are also the reasons for suicide in Addis Ababa. Out of the 12 cases 3 committed suicide due to family conflict, 2 social isolation problem, 4 with mental illness and 2 with economic constraints 2 due to a combination of mental illness and economic constraints. Socio-economic problems may be studied from different perspective depending up on the cultural values and social norms of different societies. Results of the current study social isolations are discussed in terms of poor social relationship; economic constraints are discussed under stress related to emotional upset.

Suicide causes untold psychosocial and economic problems for the families, relatives friends and peers of decedents. It has been observed that respondents to this study are suffering from grave consequences of suicide. Most

of decedents being in the productive age group the society at large also lost intellectual and social contributions of these individuals. Bole sub-city being the most affected one in this study it is presumed that these people are among the economically strong sections of the residents. Therefore we can imagine the economic losses families and friends are suffering from. To evaluate the extent of economic impacts at family and community level it may be necessary further studies to this effect.

Social works roles at family and community level is of paramount importance in preventing and controlling suicide. In Ethiopia, even thought there are not institutions working on families to the effect of reducing and solving family conflict, there are exemplary traditional practices what we call them *shemgelena*. While evidence shows that there is a pressing need to introduce social work interventions in this respect, it is wise to explore social and community practices that are targeted at solving community wide and family level problems. This may not necessarily mean the introduction of new approaches or modern projects. Strengthening the traditional dispute resolution and negotiation methods, institutionalizing the system and promoting their relevance is an important step. More over exploring the root causes of family conflict and social isolation with the existing structural set up is also relevant in Ethiopia

Nazarzadeh et.al 2013 concluded that social factors, family conflicts and marital problems have a noticeable role in Iranian sociology. As a society that gives value to social factors the same is true with the case of Ethiopia. In addition

to the above mentioned factors the current study showed that the Addis Ababa community also gives value to religious faiths. Significant number of respondents was of the opinion that commitment to religious values is a protective factor for suicide and attributes suicide with lack of commitment to religious faiths. Further study may be required to explore n religious views towards suicide.

In a study conducted to investigate the associations between psychiatric diagnosis in late adolescence and the risk of suicide in a cohort of psychiatric patients it was proved that there is risk of subsequent suicide and suicide attempt over a 36-year follow-up (Lundin, et.al.2011). In line with these studies, in the current study mental illness constitute the most common reason for suicide (50%).

WHO(2013) remarked that risk factors for suicide include mental and physical illness, alcohol or drug abuse, chronic illness, acute emotional distress, violence, a sudden and major change in an individual's life, such as loss of employment, separation from a partner, or other adverse events, or, in many cases, a combination of these factors (WHO,2013). According to Vijayakumar, (2005) while mental health problems play a role which varies across different contexts, other factors, such as cultural and socio-economic status, are also particularly influential. The impact of suicide on the survivors, such as spouses, parents, children, family, friends, co-workers, and peers who are left behind, is significant, both immediately and in the long-term. There are untold sufferings on the relatives and friends of people who died due to suicide.

Societal views towards suicide

Patton, (2009) in their work on suicide, proposed that social characteristics are determinants of a society's suicide rate. For them social integration, social regulation are important causes of suicide. Additionally, economic changes, whether good or bad, were perceived by them as predictors of suicide rates in industrialized societies. The same ideas are entertained by the responds of this study. Social isolation sense of loneliness and absence of open discussion among family members are perceived causes of suicide. Most respondents argue that almost all causes of suicide are the results minor problems which lead to emotional upset and stress. These conditions are worse when they happen to mentally ill individuals.

For a society like ours that give strong values to social ties, religious faiths and cultural norms, social intervention programs of promoting social values, cultural norms and religious education could be used as important tools to prevent and control suicide. Likewise economic conditions of unemployment, high cost of living and social isolation are also causes of suicide. There is strong relationship between economic constraints and social values. A person who has economic constraints may be socially isolated hence depression and loneliness. On the other hand economic constraints lead to frustration hopeless and addiction to substances that may also result in social isolation.

Religion has a lot of influence on social life. The Biblical basis for the injunction against suicide has been derived from the Noahide laws: "For your lifeblood too, I will require a reckoning" (Genesis 9:5). This statement has been

seen as a prohibition not only against suicide but also against any form of self-mutilation.

In a qualitative study conducted in Uganda suicide is largely seen as a breach of God's doctrine life is sacred, God's commandment thou shall not kill, and God's rule of agape. The study also focuses on the consequences of breaching God's divine providence: punishment from God and the Church (Mugisha, 2013).

Religion still has a lot of influence on people's views on suicide in Ethiopia. The same arguments are raised in the current study. Commitment to religious values may be a protective factor for suicide as people may not want to suffer more in the post death life. They may avoid suicide for fear of punishment. However, religious commitment and devotion to the divine rule may also be a contributing factor. It has been experienced that fanatic individuals used to commit suicide. As stated through the national television a year back physical couples died due to starvation for they were fasting the long Christian fasting season (the 60 *hudade* days fasting)

Suicide Prevention

Mann *et al*. (2005) stated that "Suicide prevention is possible because up to 83% of suicides have had contact with a primary care physician within a year before their death and up to 66% within a month. Thus, a key prevention strategy is improved screening of depressed patients by primary care physicians and better treatment of major depression". Many interventions such as pharmacotherapy and psychotherapy, education of professionals and gate keepers, restricting media coverage and reducing access to means, have been indicated by Mann et al. (2005) as strategies to reduce the frequency of suicide attempts.

Unlike other studies the current study revealed that there are no diverse means of suicide in Addis Ababa. The majority of cases (93%) suicides are committed using a single method hanging. This means is not easy to avoid or prevent according to most of the respondents. As ropes are most of the time used for self hanging it may not be an easy task to avoid them for they are easily purchased from shops.

Restricting access to common means of suicide, such as firearms, toxic gas, pesticides and other, has been shown to be effective in reducing rates of death in suicide. According to Sarchiapone et. al. (2011) a number of factors may influence an individual's decision regarding method in a suicide act, but there is substantial support that easy access influences the choice of method. It seems that most people preferred rolps for the reason that they are accessible. Based on the findings of their study the authors recommend restriction to means of suicide may be particularly effective in contexts where the method is popular, highly lethal, widely available, and/or not easily substituted by other similar methods. However, since there is some risk of means substitution, restriction of access should be implemented in conjunction with other suicide prevention strategies.

Social workers are expected to play important roles in suicide intervention. Care giving behaviors of medical personnel to suicidal individuals have been reported to be influenced by their own attitudes toward suicide. In this context, only a limited number of studies have examined social workers' attitudes toward suicide. However it is understood that social workers could play a great role in

suicide prevention activities by engaging themselves in community based intervention programs.

In a study in Japan on 2,999 social workers using self administered questionnaire to explore associations between personal or occupational factors of social workers and their attitudes toward suicide by applying the Attitudes Toward Suicide Scale (ATTS) to measure attitudes toward suicide, participants with a history of suicidal thoughts had stronger attitudes regarding the right to suicide than those with no history; these attitudes were not affected by a history of participating in suicide-prevention training. The authors recommend that suicide education should incorporate programs directed at altering permissive attitudes toward suicide (Kadaka, et.al 2013). Lie wise there is a need to conduct further studies in this respect if social workers could be involved and positive outcomes could be registered in suicide prevention activities.

Conclusion and Recommendations

Conclusion

Suicide is a public health and social problem that draws the attention of policy makers and researchers worldwide. Each year significant number of people died due to suicide especially in developing countries affecting the most productive age group of the society and the elderly. Therefore, registering certifying and identifying suicidal deaths as recommended by the World Health Organization is required to design methods for its prevention and control.

In Ethiopia there is no well organized system of death registration and certification for all causes of death. Likewise suicide registration, investigation and certification is conducted by the institution and data is meant to administer criminal justice. While statistical figures indicate there are significant number of suicidal deaths in Addis Ababa the system lacks proper registration and certification. Means used for suicide may vary depending on the availability of means and gender preferences, males being mostly affected by completed suicides. Hanging, poisoning, drowning, throwing away, using gun fires and electric shock are commonly used means.

Reasons for suicide may also be different in different situations. However, mental illness, social isolation, economic constraints, educational problems and health problems are the most common reasons for suicide. These conditions are universally accepted reasons. However, in Ethiopia there are also culturally

ascribed conditions such as lack of religious commitment as reasons for suicide. On the other hand religious commitment is also considered as a preventive factor.

Suicidal behaviors are predictable hence prevention is possible by avoiding the means and looking for possible remedies. Individual as well as community level in intervention towards suicide prevention and control may include advancing religious education, social education , respect for societal and cultural norms, care and support for mentally ill individuals, open discussion and transparency among family members and general public education.

Like other developing countries suicidal deaths in Addis Ababa is increasing. Males and the productive age being the most affected ones, a total of 205 people died due to suicide within the last one year. Unemployment, economic constraints, social isolation, lack of religious commitment and mental illnesses are the perceived causes of death in Addis Ababa. Incompleteness of records, failure to identify few suicidal death from negligent and homicidal deaths and possibility of under reporting suicidal deaths are problems the Ethiopian system of suicide statistics suffers from. This is mainly because the institutions are working for the administration of justice rather than public health.

Recommendations

Based on the findings of this research the following few points are recommended

Suicidal behavior is a complex situation that involves individual's health, social life, and psychological conditions. Therefore, in order to clearly understand its epidemiology and association of basic socio-demographic variable and used data for public health policy formulation it is important to conduct community wide research using the existing institutional set-up.

Proper identification and registration of causes of death is an important aspect of national health system. In order to have informative and reliable data about the injurious deaths in general and that of suicide in particular it is recommended to have proper registration and certification of suicidal deaths so that it is possible to identify who really dies from suicide.

Criminal death investigation and certification is an important aspect of criminal justice administration. In Ethiopia police did not have access to the dead body to conduct forensic examination. As far as suicide investigation is concerned, police is solely dependent up on forensic pathology report from Menilik II hospital. It is recommended to have modern forensic examination instruments so that it can conduct pathologic and forensic examination by itself.

Suicidal behaviors are predictable and preventable. The general public should be educated about the possible causes and symptoms of suicide so that it could be possible to prevent and control suicide. The role of media to this effect is remarkable hence it needs to be strengthened.

Suicidal act is perceived to be criminal act of breaching governmental as well as divine rule by religious people. There are also culturally accepted norms and practices that may have remarkable effect on suicide prevention and control. Therefore, while religious institutions are strengthened to advocate their religious faiths they should also, be promoted to educate their followers. Moreover, cultural norms and societal values that promote social interaction, open discussion and avoid family conflict should be strengthened, institutionalized and promoted

Economic problems are another cause of suicide as financial crisis and life challenges lead to frustration and suicide. This is worse when it comes to old age. Therefore, there should be a system to support the economically disadvantaged groups of the community.

Majority of suicidal deaths are due to mental illness. Mental health institutions in Ethiopia are weak in terms of infrastructure and personnel. It is important to strengthen them so that they can provide better psychiatric and psychotherapy services.

Close relatives and friends of people who commit suicide are suffering from grave psychological problems as related to the circumstances of suicidal behaviors. It is recommended to administer post traumatic stress disorder (PTSD) counseling. The role of social workers in this regard is very important.

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Appendixes

Appendix I

Addis Ababa University

Graduate School of Social Work

Epidemiological and Psychosocial Analysis of Suicide in Addis Ababa

Interview Guides, Observation Checklists and Discussion Guides

Introduction

These questions are prepared to collect information and write MSW thesis on the Analysis of Epidemiological and Psychosocial Factors Associated with Suicide in Addis Ababa by collecting secondary data from Forensic Pathology at Menilik II hospital, Police Investigation and Qualitative Interviews with key informants from the two institutions and specific respondents from selected households of people who commit suicide within the last one year in Addis Ababa. The purpose of the study is to assess, investigate and analyze the prevalence of suicide and to study the psychosocial factors associated with suicide in Addis Ababa. Moreover it will help to know the most commonly used means of suicide and reasons for committing suicide in Addis Ababa. The information collected using these methods will be used to plan for intervention programs to prevent and control suicide.

In order to attain the stated objectives, collecting relevant and genuine data is highly significant. In this regard, information check list, semi structured questionnaire, interview guides and observation checklists are prepared to record secondary data and to interview respective respondents. Accordingly, this paper consists of four sections. These are:

- **Section one**: Information check list to record secondary data from the records of the forensic pathology department at Menilik II hospital and Forensic department at the Addis Ababa police commission.
- **Section two**: Questions and discussion guides prepared for key informants
- **Section three**: Questions to be posed to next of keens, care givers of decedents
- **Section four** : Observation checklists

Section One: Information Check list

This information checklist is meant to record data from the registers of the Forensic Pathology Department at Menilik Second Hospital and Forensic Department at the Addis Ababa Police Commission**.** For each of the following forms, you are requested to fill all the information by looking at the registers of the institutions. The forms consist of variables that should be completed. You have to check the forms for completeness and accuracy of the variables before leaving respective offices. If information is not complete from the registeres you have please try to maje complete by looking into other registers or by asking relevant people in the institution.

Information about the deceased and the death registration

Num	**Question**	**Record**	***Variabl***
1.1	Date data	□□/□□/□□□□	*Dcollect*
1.2	Time Data	□□:□□ (Hours:	*Tcollect*
1.3	Name of the Data	*(text)*	*Ndatcoll*
1.4	Record ID	□□□□	*IDrec*
1.5	Name of Institution	1. Menillik `II Hospital 2. Addis	*Na Instu*
1.6	Full Name of the Deceased		*Decnam e*
1.7	Woreda	*(text)*	*Woreda a*

1.8	Kebele	*(text)*	*Kebell*
1.9	House Number	*(text)*	*Hnumbe*
1.10	Telephone	*(text)*	*Telleeee*
1.11	Age	*(text) in years*	*Age*
1.12	Gender	1. Male 2. Female	*Sexdec*
1.13	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Non	*religondecc*
1.14	Ethnicity	1. Tigre 2. Amhara 3. Oromo 4. Gurage	*Ethndecc*
1.15	Marital Status	1. Single 2. Married 3. Divorced	*Meritdecc*
1.16	Educational status	1. Illiterate 2. Basic education 3. Primary 4. Secondary	*Edudecc*
1.17	Date of death	□□/□□/□□□□	*Datedea*
1.18	Date Death Certified(dd/mm/yyyy)	□□/□□/□□□□	*dtaecertif*
1.18	Certified Cause of Death (Suicide Means)	1. Poisoning 2. Gun shot or other Firearms 3. Hanging and strangulation	*causedeath*
1.18	Name and address of the relative (contact	(text)	*Ncaregive*
1.19	Woreda	(text)	*Woredcare*
1.20	Kebele	(text)	
1.21	House number	(text)	*Hncarea*
1.22	Telephone	(text)	*telecarg*
1.23	Relationship with the deceased	(text)	*relatship*

Section two: Questions and discussion guides prepared for key informants

Direction: For each of the following questions, you are requested to provide precise and true response. It is your right to refuse or discontinue from participating in this study. Finally, I would like to promise you that all your responses will be kept confidential and used only for the purpose of this study.

Bio-data: Respondent code .....Sex.....Age..... Current position.....

Field of study..... Level of education..... Years of service in current position .....Total service in years.....

Information about suicide:

1. 1 .Name of the institution …….....Location..... Department ……
2. What are the basic services or activities in your department?
3. What is the goal and objective of these activities?
4. May you tell me about the procedures of death registration and certification in your department?
5. How are suicidal and other deaths come to the attention of your organization? Who reports and how?
6. How long it takes to investigate and certify suicidal deaths?
7. What is the most common method (means) of suicide?
8. Which age group is mostly affected most?
9. Do you think that all suicides in Addis reported to your institution?
10. What do you think is the importance of registration o and certification of suicidal deaths?

11. What are the major challenges you face in the registration and certification process?
12. Do you think that your institution is efficient to register, investigate and certify suicidal deaths?
13. What is your suggestion to improve the existing suicide registration and certification?
14. What are you suggestions to prevent suicide at the community level? How should do what?

Section three: Questions to be posed to next of keens, care givers/ providers

Bio-data

Respondent code .....Sex.....Age.....Level of education..... .....

Marital status.....Occupation..... Relationship ……

Questions about the deceased:

1. What is the relationship you had with the deceased?
2. Would you please tell me about the life style of the deceased?
3. Who did you know about the suicide?
4. Did the deceased have history of suicidal attempt of ideation?
5. Did the deceased used to take the following substances? Alcohol, khat, Maruana or other drugs
6. Did the deceased or any other family member have history of mental illness?
7. Do you think that the deceased could not commit suicide had he received help from family members or friends? If yes what type of help was sought?
8. Why do you think the deceased commit suicide?

9. How can we prevent suicide in the community?
10. How do you tell me about the impact of (name‘s) death in the family?
11. What is your final remark about the death of (name)?

Section four: Observation checklists

A. Observation checklist for institutions

This observation checklist will be used to document the researcher’s personal observation of the institutions in terms of infrastructure and human resources. The following information will be documented

1. Institutional organization and infrastructure (location number of offices, instruments, procedures followed, other facilities)
2. Office arrangements
3. The composition of personnel in number and profession.
4. How death is certified and registered
5. Documentation, reporting and registration conditions

B. **Observation checklist for in-depth interview respondents**

This observation checklist will be used to record personal observation of the researcher about the general condition of the respondents to household level interview with the next of keen or care givers of the decadents. The following information will be documented using this checklist:

1. General emotional responses of the respondent
2. Housing conditions and leaving arrangements of the respondents
3. Social interactions and activities of individual respondents
4. The way people treat suicide victims and other conditions/ situations

5. Other relevant information deemed necessary to the study will be observed and embodied in the analysis to enrich the study

Appendix II

Verbal Consent Form for key informants

My name is Kidane Ayele. I am from the Graduate School of Social Work at

Addis Ababa University. I am currently collecting data for my thesis project entitled

"Epidemiological and Psychosocial Analysis of Suicide in Addis Ababa." As part of my assessment, I am collecting information from people working in suicide certification and registration at selected institution namely forensic department at Menilik II hospital and forensic department at the Addis Ababa police commission. Your are selected to be the participant based on the fact that you are working for the institution. I will use the information for the fulfillment the thesis requirement and if necessary, the report may be submitted to concerned bodies, which would use the information to plan relevant interventions that would address problems related to suicide.

Confidentiality and consent

I may ask some personal questions that some people may find difficult to answer.

I am not going to talk to anyone about what you tell me. Your answers are completely confidential. Your name will not be written on this form and will never

be used in connection with any of the information you tell me. You do not have to answer any question that you deemed unnecessary and you may end this interview at any time you want. However, your honest answer to these questions will help me better understand the epidemiological and psychosocial factors of suicide in Addis Ababa. I would greatly appreciate your help in responding to this study. The interview will take 45 minutes to an hour. I will also record our conversation to be used for the study objective only.This research has been approved by the institutional board of School of Social Work Addis Ababa University and permitted medical director of the Minilik II Hospital. If you have questions or other concerns you can ask further information by contacting the researcher using the following Address

Kidane Ayele telephone 0911484677 email Kidane2001@gmail.com

Or his Advisor Dr Hailom Banteyergu telephone 0911169144 email hailombante@yahoo.com Would you be willing to participate?

Signature if interviewer_____

(Respondents have given informed consent verbally)

Verbal Consent Form for In-depth interview participants

My name is Kidane Ayele. I am from the Graduate School of Social Work at

Addis Ababa University. I am currently collecting data for my thesis project entitled

"Epidemiological and Psychosocial Analysis of Suicide in Addis Ababa." As part of my assessment, I am collecting information from institutions working in suicide

certification and registration namely forensic department at Menilik II hospital and forensic department at the Addis Ababa Police Commission. Therefore as close relative or care giver of Mr/Msss/Mss/student---------- you are selected as one of the respondents by lottery method. I am going to ask you some information about your _____ Mr/ Ms/Mss/student----------. I got the information about you and the deceased from Menilik II hospital and/or Addis Ababa police commission. I will use the information for the fulfillment the thesis requirement and if necessary, the report may be submitted to concerned bodies, which would use the information to plan relevant interventions that would address problems related to suicide.

Confidentiality and consent

I may ask some personal questions that some people may find difficult to answer.

I am not going to talk to anyone about what you tell me. Your answers are completely confidential. Yours and the deceased's' names will not be written on this form and will never be used in connection with any of the information you tell me. You do not have to answer any question that you deemed unnecessary and you may end this interview at any time you want. However, your honest answer to these questions will help me better understand the epidemiological and psychosocial factors of suicide in Addis Ababa. I would greatly appreciate your help in responding to this study. The interview will take 45 minutes to an hour. I will also record our conversation to be used for the study objective only. This research has been approved by the institutional board of School of Social Work

Addis Ababa University and permitted medical director of the Minilik II Hospital. If you have questions or other concerns you can ask further information by contacting the researcher using the following Address

Kidane Ayele telephone 0911484677 Email Kidane2001@gmail.com

Or his Advisor Dr Hailom Banteyergu telephone 0911169144 Email hailombante@yahoo.com Would you be willing to participate?

Signature if interviewer_____

(Respondents have given informed consent verbally)

Appendix III

Profile of In-depth interview participants

Code	Education	Relationship	Occupation	Religion
205/1	Diploma	Daughter	Secretary	Orthodox
205/2	Diploma	Child-in-Law	Construction Forman	
162/1	High school	Daughter	Unemployed	Muslim
180/1	High school	Son	Merchant	Protestant
203/1	High school	Brother	Broker	Muslim
203/2	High school	Cousin	Petty trade	Muslim
201/1	Diploma	Sister	Counselor	Orthodox
201/2	High school	Wife	Petty trade	Protestant
178/1	High school	Father	Retired	Orthodox
178/2	Basic Education	Mother	Housewife	Orthodox
178/3	Diploma	Sister	Accountant	Protestant
200	Degree	Cousin	Program Officer	Muslim
143	Diploma	Sister	Unemployed	Orthodox
161	Degree	Brother-in-law	Banker	Orthodox
192/1	egree	Brother	Engineer	Orthodox
192/2	Diploma	Brother	Construction Forman	Orthodox
119	Degree	Son	Hotel Manager	Orthodox

Socio demographic profile of decedents sampled for in-depth interviews

Code	Age	Education	Relationship	Occupation	Religion	Sex
206/1	23	Diploma	Daughter	Secretary	Orthodox	F
206/2	26	Diploma	Child-in-Law	Construction Forman		M
162/1	38	High school	Daughter	Unemployed	Muslim	F
180/1	29	High school	Son	Merchant	Protestant	M
216/1	27	High school	Brother	Broker	Muslim	M
216/2	32	High school	Cousin	Petty trade	Muslim	M
213/1	46	Diploma	Sister	Counselor	Orthodox	F
213/2	36	High school	Wife	Petty trade	Protestant	F
178/1	72	High school	Father	Retired	Orthodox	M
178/2	55	Basic Education	Mother	Housewife	Orthodox	F
178/3	33	Diploma	Sister	Accountant	Protestant	F
200	34	Degree	Cousin	Program Officer	Muslim	M
143	46	Diploma	Sister	Unemployed	Orthodox	F
161	28	Degree	Brother-in- law	Banker	Orthodox	M
192/1	37	Degree	Brother	Engineer	Orthodox	F
192/2	32	Diploma	Brother	Construction Forman	Orthodox	M
119	27	Degree	Son	Hotel Manager	Orthodox	M

Declaration

This thesis is my original work and has not been presented for a degree in any other university, and that all sources of material used for this thesis have been acknowledged.

Name of the student: Kidane Ayele Gebrehiwot

Signature _____

Date _____