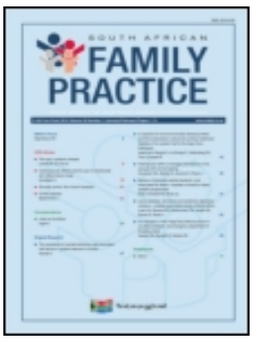

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RESEARCH

An evaluation of factors underlying suicide attempts in patients presenting at George Hospital emergency centre

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Background: Roughly 130 patients are seen daily in the emergency centre (EC) at George Provincial Hospital (GPH), of whom one or two will have attempted suicide. GPH serves the population of Eden and Central Karoo Districts. Little is known about the circumstances surrounding these suicide attempts. We examined this pattern and formulated a protocol for managing these patients.
Method: All patients attending the EC after attempting suicide between December 2010 and April 2011 were identified from the EC register. Thirty nine patients gave consent and completed a questionnaire. The data were analysed in Excel®. Additional information was obtained from five members of a focus group.
Results: Patients who attempted suicide had often attempted suicide previously. They came from a community with high levels of longstanding financial and domestic stress, violence, dysfunctional family relationships, alcohol abuse and poor coping skills. Suicide attempts generally involved impulsively taking prescription medication following an argument with a family member. Patients felt abandoned or alone, were physically or mentally abused, were subjected to alcohol abuse, or had underlying anxiety or depression.
Conclusion: Patients who attempt suicide and attend GPH EC come from a chronically stressed community with dysfunctional family patterns and alcohol abuse and lack coping skills. A psychological support team has introduced a suicide-attempt protocol in the EC offering patients an opportunity to deal with their distress and learn better coping skills.

Keywords: attempted, crisis intervention, suicide

Introduction

Worldwide, for every person who commits suicide 10-20 individuals will attempt suicide.[1] In South Africa it is estimated that there is one suicide death every hour and between 20 and 40 attempts.[2] Nearly half of all individuals who commit suicide and who attempt suicide will have previously attempted suicide. Of those who attempt suicide roughly twenty percent will make a further attempt within a year.[2] The lifetime prevalence for attempting suicide in South Africa is roughly three percent, with the "coloured" population group having the highest lifetime prevalence of seven percent.[3]

Risk factors for suicidal behaviour in South Africa include family dysfunction, low academic achievement, exposure to family violence, religious fundamentalism, bereavement, relationship difficulties, financial concerns, depression, substance abuse and personality disorders.[2] Others include being single and living alone, chronic physical illness and the availability of means to commit suicide.[4] Males aged between 18 and 34 years are at increased risk for successful suicide while females are at increased risk for suicide attempts. Young, bisexual and homosexual individuals are at greater risk as are the unemployed and those in high-risk occupations. The factors leading to suicide are common to different cultures and socio-economic groups.[1,3,5–7]

Poverty is associated with increased risk for suicidal behaviour in adolescents, maybe because they are caught up in a pattern of behaviour that predisposes this peer group towards seeing suicide as an option.[8] Religious observance has been shown to be associated with decreased frequency of suicide attempts.[9] Of interest is a study conducted in the United States showing that diminished sleep (≤ 5 hours/24 hours) increased the chance of both suicide attempts and suicidal ideation.[10]

In one South African study the main factors that precipitated suicide were problematic relationships (55%), financial problems (23%), psychiatric problems (22%), arguments (20%), abuse (18%), low self esteem/worthlessness/hopelessness (17%) and recent life changes (13%).[11] A small South African study showed that patients attempted suicide because they were facing too many physical or social problems, feeling isolated and feeling that their lives were without meaning or purpose.[12] Older patients in this study experienced diminishing physical and mental health as well as social isolation as frequent life problems.[12]

Depression increases the mortality risk from suicide attempts 20 fold.[13] Furthermore it was found that sales of an additional per capita litre of ethanol was estimated to increase suicide rates by 2.3%.[14] Addressing depressive symptoms and alcohol use may help suicide prevention efforts.[15]

Despite many studies several questions remain concerning why people attempt suicide and how to help patients who attempt suicide. One study noted that suicidal attempts possibly reflect an individual's inability to deal with a crisis because of a lack of coping skills and problem solving abilities, while another researchers noted that the provision of psychosocial counselling, continuing support and support groups had the potential to reduce suicide mortality.[16,17]

Roughly 130 patients attend the Emergency Centre (EC) at George Provincial Hospital (GPH) daily and of those patients one

or two will have attempted suicide. A suicide attempt is defined as self-injurious behaviour with a non-fatal outcome.[18] Patients who attempt suicide often encounter staff in the emergency centre who are either indifferent or negative towards them. In addition, the EC lacks a protocol for attempted suicide. This study was conducted in GPH to describe the demographics and to identify the main factors that cause patients to attempt suicide in the Eden district and then attend the EC. The researchers intended to use this information to assist with the development of a local protocol on the management of attempted suicide.

Methods

This study used both quantitative and qualitative methods to explore factors underlying the suicide attempts. The first part of the study involved a questionnaire administered to patients who were admitted to the EC short-stay ward while the second part convened a focus group to discuss aspects of patients' suicide attempts.

The setting

GPH is the secondary hospital for the Eden and Central-Karoo districts and serves a population of 500 000. Eden district has a predominantly "coloured" population (58%) with the remainder of the population divided between the "black" population (20%) and "white" population (22%).[19]

Patients who attend the EC after attempting suicide are treated by the doctor on duty, most patients are admitted to the EC short-stay ward for observation while those needing more care are admitted to high-care ward or the internal medicine ward.

The survey

The study was conducted on patients who attended GPH EC between December 2010 and April 2011 after attempting suicide. This study included those who were intent on taking their lives and who wished to die, as well as those who made impulsive suicidal gestures (parasuicide) to gain the attention of those around them. Patients with a low Glasgow Coma Scale rating and those admitted to the high-care ward were excluded from the study. The remaining patients were medically stabilised, counselled and admitted to a short-stay ward for observation.

Patients who consented completed an anonymous questionnaire administered by the researcher as well as nursing and medical staff in the ward who had been trained in the use of the questionnaire. The questionnaire was constructed by the researchers and the content was based on their clinical experience of working in this community for 10 years and the literature. No formal validation process was conducted although the questionnaire was piloted to ensure it was understandable and practical to administer. The questionnaire was administered in either Afrikaans or English and explored patients' social circumstances and reasons for attempting suicide. Xhosa-speaking participants were helped to complete the questionnaire by an interpreter. Patients were not pressured into answering questions they could not answer and consequently a number of questionnaires were incomplete.

Thirty nine patients completed questionnaires over this five month period – fewer than the 80 that had been expected from the EC register record that previously showed one attempted suicide daily over the preceding year. The reasons for the low response were multiple. Some patients were discharged after an initial consultation, which did not allow sufficient time for completing the questionnaire. Other reasons included patients who were admitted to the medical and high-care wards, while a few patients declined to answer the questionnaire. There were also minors among the patients and a parent or guardian was not always available to give consent. Furthermore, some patients who were still inebriated or sedated from substances taken in the suicide attempt could not give consent.

Data was entered into an Excel® spread sheet and analysed descriptively.

The focus group

A focus group was convened of five consenting female patients and family members aged between 17 and 49 years who agreed to participate after having been canvassed at home by a nursing sister. From the pool of patients that consented to participate in a focus group, most were female and only the female patients were found at their homes so that the logistical arrangements for the focus group could be done. This group explored patients' experience with a view to patients sharing information that was richer than that obtained from the questionnaire. The local context suggests that patients would be more comfortable sharing such information in a small group than in an individual setting.

The two-hour focus group which explored patients' reasons for attempting suicide was facilitated by the researcher and the researcher's supervisor. The group was asked to respond to the exploratory question: *"What was happening in your life around the time of your attempt to end your life?"*

The interview was recorded electronically and transcribed verbatim, the researcher's interview notes were written up after the interview. The transcript was read and reread, major themes were identified and codes listed in a thematic index. Thereafter the transcript was fully coded, data on key themes was charted using a cut and paste technique, and the charts were interpreted.

Results

The survey questionnaire

Tables 1–4 show the results of the questionnaires completed by 39 patients who attempted suicide and who then attended the EC. Participants' mean age was 26.7 years (SD 11), 72% were female, 59% were single and 46% were unemployed.

Although not shown in Table 1, 25 (64%) described their mood in the preceding two weeks as "sad", while 14 (36%) described their mood as "content" or "happy".

The most common substance used in the attempt were available medicines, either the patient's own medicine or those of a family member, while others ingested household poisons.

A high proportion of patients had intended to die and had also attempted suicide previously. Data for the number of previous suicide attempts could not be obtained for 6% of patients.

The majority of patients reported feeling lonely and helpless and not having "something to look forward to", although most reported that they did have someone to talk to.

Family dysfunction, financial and other stress, and alcohol use were the main factors contributing to patients' suicide attempts..

The focus group

Six main themes emerged from the focus group discussions.

Table 1: Demographic characteristics of participants (*N* = 39)

Characteristic	Variables	*n*	%
Gender	Female	28	72
	Male	11	28
Marital status	Single	23	59
	Stable partner	11	28
	Married	3	8
	Divorced	1	3
	Missing	1	2
Employment status	Unemployed	18	7
	Scholar	6	15
	Employed	11	28
	Disability Grant	4	10

Table 2: Agent used in the suicide attempt (*N* = 39)

		n	%
Overdose medication	Paracetamol	4	10
	Amitriptyline	4	10
	Iron	2	5
	Epilepsy related	1	3
	Anti-hypertensive	5	13
	Benzodiazepines	2	5
	Diabetes-related	1	3
	Other	12	31
	Patient unsure	8	21
Who's medication?	Own	13	33
	Other	8	21
	Mother's	6	15
	Grandmother's	2	5
	Friend	1	3
	Not stated	9	23
Recreational drug use	None	32	82
	Metamphetamine (Tik)	1	3
	Marijuana (Dagga)	4	10
	Not stated	2	5

Table 3: Patients intentions and previous suicide attempts (*N* = 39)

		n	%
Previous suicide attempt	No	23	59
	Yes	16	41
If yes, how many times?	1	7	44
	2	5	31
	3	2	13
	4	1	6
	Not stated	1	6
Intention to die	Yes	25	64
	No	12	31
	Not stated	2	5

Table 4: Patients' reported emotions and support (*N* = 39)

		n	%
Emotions	Loneliness	10	26
	Helplessness	7	18
	Hopelessness	4	10
	Anger	6	15
	Other	6	15
	Emptiness	2	5
	Not stated	4	10
Something to look forward to?	No	22	56
	Yes	15	39
	Not stated	2	5
Someone to talk to?	No	17	44
	Yes	21	54
	Not stated	1	3

Table 5: Factors contributing to suicide attempt (*N* = 39)

	n	%
Disagreement with a loved one	21	54
Stress at home	13	33
Consumption of alcohol in last 24 hours	7	18
Financial worries	6	15
Previous attempted suicide by friend or family member	5	13
Violence involving intimate partner	4	10
A psychiatric illness	4	10
Pregnancy	3	8
Living with a chronic disease	2	5
Stress at school	1	3
Stress at work	1	3

Abandonment

Four out of five participants had been abandoned by either a parent or partner: *"I haven't got a mother"*; *"my father passed away and my mother was always absent"*; *"my child's father is still alive, but he seems dead"*; *"estranged from my husband"*. Consequently the participants lacked the support of those who otherwise would have been closest to them. Those who they thought they could count on to help them when they needed help were absent when they most needed them. When they turned to their communities for help, little or no support was forthcoming.

Emotional abuse

Four out of five participants felt that they were broken down or emotionally abused by people in the community: *"I'm often being pulled down"*; *"people stare at me"*; *"talk about me"*; *"girl was just making remarks and laughing at me"*; *"I felt abused by him"*; *"there is always someone who pulls you down"*. It appears that there was a lack of empathy for people going through hardship in the communities from which these patients came. One example concerned a young woman whose best friend cheated with the participant's boyfriend. To the participant's dismay, her remaining friends made fun of her, pretending that she was the one doing something wrong, thus she lost the rest of her friends as well. A caring community might well have supported her as the victim and not have taken pleasure in her distress.

Alcohol abuse

Three participants said that either their partners or someone that they were living with abused alcohol – *"there was a drinking spree at home"*; *"he started drinking... physically abused me when he was drunk"*; *"he was drunk"*.

Difficulty coping with stress

Three participants reported difficulty in coping with stress – *"I'm stressed every day"*; *"I can't handle the stress"*; *"I couldn't cope"*.

Being alone

Two out of the five participants noted that they felt very alone: *"I am lonely"*; *"I had no one to talk to, I had no one to share it with"* .

The precipitating event

Most of the participants attempted suicide after a confrontation with a loved one: *"I got into an argument with my boyfriend"*; *"I confronted my boyfriend, but he was drunk and did not listen"*; *"my sister in law answered me very rudely, so I took a hand full of pills"*.

It became clear that although the suicide attempt often appears to have been an impulsive act, most of the participants experienced prolonged trouble in their relationships prior to their attempt.

Discussion

Key findings

The common reasons for attempted suicide in patients presenting at GPH EC were disagreement with a loved one, financial difficulties, domestic stress, violence by an intimate partner, difficulty coping with stress, psychiatric illness, as well as alcohol consumption in the preceding 24 hours by either their partner or someone they were living with.

Participants felt abandoned by either a parent or a partner. They felt alone and they did not have a friend or family member that they could talk to when they were experiencing serious problems. Lastly, participants perceived that they were being broken down or emotionally abused by people in the community.

The majority of participants in this study who attempted suicide were female, single and unemployed. Numerous studies confirmed that these demographic factors are associated with increased suicide risk. The age group 18–34 years and males are at increased risk for suicide, while females, those living alone and not married are at increased risk for suicide attempts. [1,3–7]

Forty one percent of the participants have had previously attempted suicide. This correlates with Schlebusch's findings that 40% of fatal and 30-60% of non-fatal suicides had previously attempted suicide.[2] Since there is such a high recurrence rate of suicide attempts, it is important that a structured intervention strategy be developed for EC staff to implement. Such an intervention strategy could help prevent future attempts and suicide.

Most of the patients had intended to die when they attempted suicide, with the same percentage feeling sad in the two weeks preceding the suicide attempt. Thus, contrary to the assumption of most of the EC staff who attended to these patients, these suicide attempts by patients were not merely impulsive acts – a finding confirmed during the focus group discussion. Each suicide attempt was preceded by a long, difficult and often abusive relationship. The communities concerned in this study also appeared to lack empathy for individuals undergoing hardship. It would be helpful for EC staff to not to limit their enquiries solely to the precipitating event when asking patients about their attempts to commit suicide.

Limitations

This hospital-based study was limited in that it drew only on a selection of patients who attended the EC after attempting suicide. It was not therefore possible to form a picture of the pattern of attempted and successful suicide in the population at large. The sample of 39 patients questioned was smaller than the 80 patients hoped for because the following patients were excluded: patients who were discharged after an initial consultation, patients admitted to the medical and high-care wards, patients who declined to answer the questionnaire, minors where a parent or guardian was not available to give consent, and patients who were inebriated or sedated from substances taken in the suicide attempt.

It is appreciated that patients who were willing to participate in the focus group may have had different suicide factors to those who did not consent - those who did not consent may have been more depressed or more serious about their intention of attempting suicide. Furthermore all the participants in focus group were female. Contextual issues relating to female patients may be different from those experienced by male patients, for example power issues, financial issues, or role expectations. This may have emerged in focus group discussions if males were also included.

Implications and recommendations

The current practice of emergency care, followed by overnight admission to the EC short-stay ward, and limited psychological counselling for patients who have attempted suicide does not protect patients against further suicide attempts. To prevent future suicide attempts all patients presenting to the EC following a suicide attempt should: receive counselling about relationship problems, be helped to learn stress management techniques, be counselled regarding alcohol use and abuse, and be helped to establish a support structure. In discussion with the local psychiatric team and psychologist, the following interventions were introduced in the GPH EC:

- While they are in the EC patients are offered an appointment with a support group and given a list of supportive organisations.
- Support groups are held for patients who have attempted suicide to help them alter their thinking patterns into more constructive modes and to develop better coping skills. Groups of between 10-12 participants facilitated by a psychologist meet weekly for 2 hours for 4-6 weeks.
- Staff in the EC are less inclined to dismiss patients' suicide attempts as merely impulsive behaviour now that they have understood and endorsed the protocol for attempted suicide.

An evaluation of the effectiveness of the support groups and further research into the attitudes of the local community, especially alcohol abuse, could lead to additional interventions in the Eden and Karoo districts.

Conclusion

Attempted suicides place a burden on emergency services at GPH and repeated suicide attempts are very common. This study revealed a pattern of underlying psycho-social factors which can be anticipated in the management plan. The EC consultation offers staff a vital opportunity to intervene and prevent future suicide attempts and ultimately fatal suicides. Suggested interventions include group sessions facilitated by psychologist and an appointment card in hand during the EC consultation. Despite the study limitations, valuable insights emerged,which could prompt a larger study to explore how we can address the huge burden of community psychiatric illness in greater depth with suicide attempts being a sentinel indicator.

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Appendix

Questionnaire

1. Indicate the gender of the patient below:

Male	
Female	

Please ask the patient:

2. What is your age?

_____

3. What is your marital status?

Single	
Married	
Divorced	
Widowed	
Stable partner	

4. What is your employment status?

Scholar	
Employed	
Unemployed	
Disability Grant	
Pensioner	

5. Which one of the following best describes your mood, during the last 2 weeks?

Happy	☺
Content	😐
Sad	☹

6. If you took an overdose, what kind of medication did you take?

Paracetamol	
Amitriptyline	
Benzodiazepines	
Epilepsy medication	
Anti-hypertensives	
Diabetes medication	
Antibiotics	
Iron	
Other	

7. Who's medication was it?

Own	
Mother's	
Father's	
Grandmother's	
Grandfather's	
Friend	
Other	

8. What recreational drugs to you take?

Dagga	
Mandrax	
Tik	
None	
Other	

If other, please specify: _____

_____

9. At the time of the suicide attempt, did you intend to die?

Yes	
No	

10. Have you attempted suicide before?

Yes	
No	

If YES, how many times?:

_____

11. In your own words, why did you attempt suicide?

12. Which one of the following best describes your emotions?

Helplessness	
Hopelessness	
Emptiness	
Loneliness	
Anger	
Other	

If other, please specify: _____
_____

13. Do you have something to look forward to in the next year?

Yes	
No	

14. Do you have a friend/family member you can talk to when you are experiencing serious problems?

Yes	
No	

15. Which of the following situations contributed to your suicide attempt?

Disagreement with loved ones	
Living with a chronic disease (e.g. Diabetes/cancer/HIV/ cardiac/lung)	
Violence involving intimate partner	
Consumption of alcohol during the 24 hours preceding your attempted suicide	
Stress at home	
Pregnancy	
Stress at school	
A psychiatric illness	
Stress at work	
Previous attempted suicide by a friend/family member	
Financial worries	