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Author of Thesis: Sofia Sandys

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**SUICIDAL BEHAVIOUR, ATTITUDES TOWARDS
SUICIDE, ASSOCIATED RISK FACTORS AND PEER
RESPONSE AMONG FIJIAN YOUTH**

by
Sofia Sandys

A thesis submitted in fulfilment of the
requirements for the degree of
Master of Arts (MA) in Psychology

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Discipline of Social Sciences
School of Law and Social Science
The University of the South Pacific

March, 2022

DECLARATION

Statement by Author

I, Sofia Sandys, declare that this thesis is my own work and that, to the best of my knowledge, it contains no material previously published, or substantially overlapping with material submitted for the award of any other degree at any institution, except where due acknowledgment is made in the text.

Signature  Date..... 11 August 2021

Name Sofia Sandys

Student ID No. S11055644

Statement by Supervisor

The research in this thesis was performed under my supervision and to my knowledge is the sole work of Sofia Sandys.

Signature.....  Date 10 August 2021

Name..... Neeta A. Ramkumar

Designation External Supervisor

DEDICATION

To the victims of suicide and their families.

To those who continue to struggle with mental health issues.

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ABSTRACT

Suicide is a global phenomenon and a major public health concern. Published data has suggested that Fiji has a particularly high suicide rate, and that youth in the Pacific region may be at higher risk for suicidal behaviour than similarly aged peers in other countries. However, little research has explored the underlying factors that could explain the higher risk of suicide faced by Fijian youth. The purpose of this proposed study was to gain a better understanding of how psychological, social-psychological and subcultural factors influence suicidal behaviour and attitudes towards suicide amongst youth in Fiji. Fijian students ($N = 218$) from the University of the South Pacific completed an online questionnaire which included a number of standard measures related to suicide. Prior to the main analyses, two pilot studies were conducted on the research instruments to obtain feedback regarding participant perception of the length, clarity, ability to sustain focus and emotional impact of the questionnaire. This was followed by exploratory analyses to identify correlates of suicidal behaviour. The main analyses were a series of regression models which sought to identify the best model for predicting suicidal behaviour as measured by the survey. There were 4 models tested: 1) Model 1 – Protective Factors; 2) Model 2 – Risk Factors; Model 3 – Significant Attitudes; and Model 4 which consisted of significant predictors of suicide from standard multiple regression when Models 1-3 were added at the same time. Significant predictors of suicidal behaviour (model 4) included *depression*, *self-compassion*, *normality* and *rejecting* in the overall model. Demographic variables were not consistently significant predictors across the models except for *sexual orientation* and gender: *gender* was a significant predictor in all four models. Analysis for *sexual orientation* revealed significant correlations for LGBTQA+ and predictors for *heterosexual*; the four models with the *heterosexual* group were significant as expected. Implications for practical suicide interventions could focus on areas such as depression, self-compassion, peer support and specific groups; for example, women, men and LGBTQA+. Future research is needed to investigate suicidal behaviour in the wider community.

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LIST OF ABBREVIATIONS

ATTS	Attitudes towards Suicide Questionnaire
BFI	Big Five Inventory
CWM	Colonial War Memorial
FRC	Faculty Research Committee
LGBTQA+	Lesbian, Gay, Bisexual, Transgender, Queer and Asexual
NCD	Non-Communicable Diseases
PHQ-9	Patient Health Questionnaire
PSS	Perceived Stress Scale
SBQ-R	Suicide Behaviour Questionnaire-Revised
SCS	Self-Compassion Scale
SOQ	Suicide Opinion Questionnaire
USP	University of the South Pacific
WHO	World Health Organisation

CHAPTER 1

Introduction

1.1 Background

Fiji, an archipelago located in the South Pacific, gained its independence from Britain in 1970. It consists of more than 300 islands, the major ones being Viti Levu and Vanua Levu, with the capital of Suva. Fiji is divided into 14 provinces, called Ba, Bua, Cakouadrove, Kadavu, Lau, Lomaiviti, Macuata, Nadroga/Navosa, Naitasiri, Namosi, Ra, Rewa, Serua and Tailevu. While Fiji's urban population is currently at its highest, there has been a decrease of 5.3% in the rural population according to the 2017 census compared to the 2007 statistics. With regard to the population's gender demographics in urban areas, there are more men than women in the age groups of 0-4, 5-9, 10-14, 25-29 and 45-49 while there are more women amongst those aged 15-19, 20-24, 50-54 and 75 years and above. In the rural areas, there are more females amongst those aged 75 years and older and more men in the age groups 0-4 and 65-69 years (Fiji Bureau of Statistics, 2018). The official languages are iTaukei, Hindi and English. The indigenous Fijians or iTaukei make up the majority of the population while Indo-Fijians or those of Indian descent, most of whom are descendants of indentured labourers, make up the second largest ethnic group. Other ethnic groups include Rotumans, Rabian, Part-Europeans, Chinese and Pacific Islanders and mixed ethnicities. Major religious affiliations in the country include Christian, Hindu, Muslim and Sikh.

Since the study focused on university students, a context has been given for the university sample. The University of the South Pacific (USP) is one of the higher education institutions in Fiji and the Pacific region. USP was established in 1968 and is co-owned by the governments of 12 member countries in the Pacific region: Fiji, Cook Islands, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu (USP, 2021). Students from the current study attended the university at the time of the survey.

1.2 Suicide Prevalence

According to the World Health Organisation (WHO) more than 700, 000 deaths occur annually due to suicide and is the second leading cause of death among individuals aged 15 to 29 years old and third leading cause among 15-19yr olds (WHO, 2019). This suggests that while suicide is acknowledged as a significant issue in all age groups, young people are particularly affected by suicide compared to other fatality risk factors. Moreover, in populations within the Pacific, this general trend of youth being highly impacted was shown in a recent New Zealand report (2019) that indicates younger aged youth were generally accounted for the highest rate of suicide between 1996-2016.

As it relates to the context of Fiji, works by Lal (2008) mention records of suicide as far back as 1884-1925. Sexual jealousy was an indicator for suicidal behaviour and was common amongst indentured labourers on the plantations. It was also noted that these suicide rates were highest in men aged 21-30 years old. Lal also highlighted that the trend of suicide at this time was perhaps due to individuals facing new/unaccustomed problems in unfamiliar environments without the support of family units, similar to theories of Durkheim. Price and Karim (1975) also found high suicide rates amongst Indian Fijians based on medical data, although the rates were significantly higher in Indo-Fijian women in rural areas.

In terms of suicide being a major public health concern in Fiji, previous research has indicated that Fiji has one of the highest suicide rates in the Pacific region (Booth, 1999; Pridmore, Lawler & Cooper, 1996). In 2019, Police reports confirmed a total of 123 cases of completed suicide, while reported cases of attempted suicide were 121 (Fiji Police Force, 2020). Of these, 30 cases were below the age of 26 for completed suicide, while 59 attempted suicide. Additionally, this report indicated a higher suicidal behaviour for Indo-Fijians compared to iTaukei and other ethnicities. According to the report, common methods of suicide behaviour included hanging, overdose, injury, chemical poisoning and burns. Figures 1.1 and 1.2 show a summary of attempted and completed cases of suicide for men and women between the years 2002 and 2018 in Fiji. Importantly, these statistics can be considered conservative estimates as they are based only on cases specifically reported to the police and do not include suicidal attempts which may have led to general treatment at hospitals, clinics or other health care facilities.

Figure 1.1 Completed Suicide and Attempted Suicide Cases for Males (Fiji Bureau of Statistics, 2019)

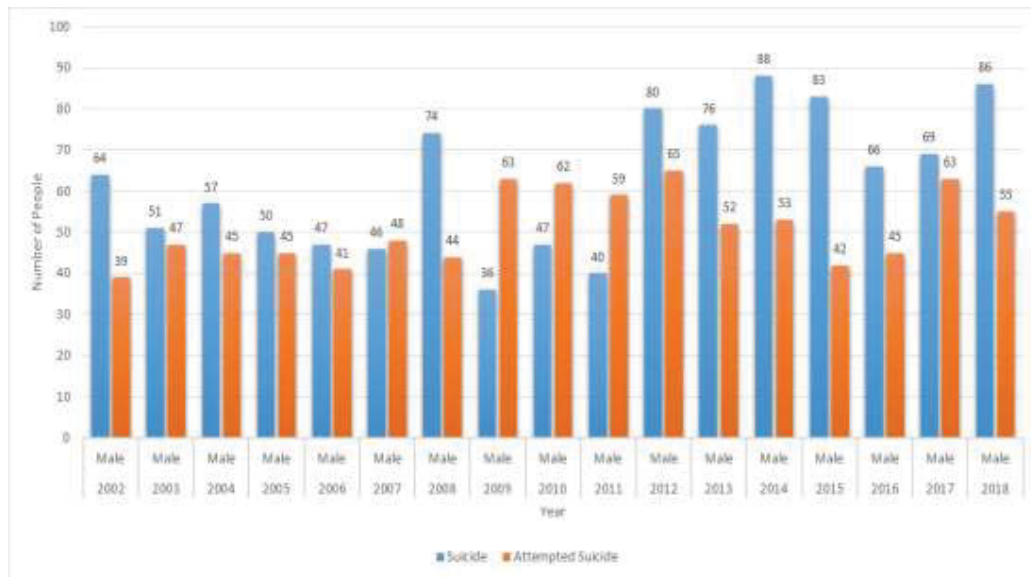
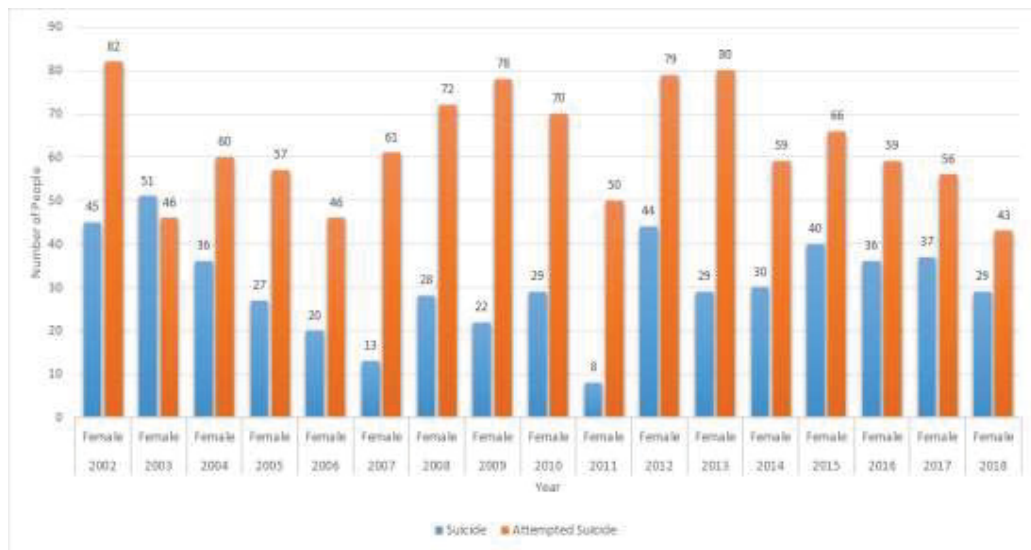


Figure 1.2 Completed Suicide and Attempted Suicide Cases for Females (Fiji Bureau of Statistics, 2019)



Suicide is a complex phenomenon that needs to be understood within cultural contexts as researchers have noted cultural differences in suicide across countries. For instance, suicide rates tend to be higher amongst men in western countries but higher amongst women in some Asian countries (Mayer & Ziaian, 2002). Furthermore, Pridmore & Pridmore’s (2017) demonstration of the influence of culture on suicide

rates in over 22 countries including the United States, United Kingdom, Canada, New Zealand and Australia, suggested that a cause of rising suicide rates may be that traditional cultures are being challenged and damaged which leads to less guidance and support for those who may be suffering. Indeed, both Bolt (1982 – Canada) and Bierregard and Lynge (2006 - Greenland) found direct links between the relevant population suicide rates and cultural changes related to modernization. Similarly, rising rates of suicide were associated specifically with the disintegration of traditional social structures in some pacific societies (Hezel, 1987; Macpherson & Macpherson, 1987; Mathieu et al., 2021). In Fiji, cultural observations are such that people may shy away from discussing suicide and it is possible that the rise in youth suicide may be related to a lack of knowledge of how to respond to an individual in crisis. In a recent review, Mathieu et al. (2021) pointed out that the rise in suicidal behaviour amongst young people in some pacific countries such as Kiribati, Fiji, Samoa, Vanuatu, Tonga was related to the role of social change. This would indicate that in order to be effective suicide prevention will need to consider cultural contexts as they relate to suicidal behaviour and mental health.

CHAPTER 2

Literature Review

2.1 Terminology

Suicide behaviour – a self-harm behaviour which range from suicidal ideation, attempt and eventually carrying out the act or completed suicide (WHO, 2002). Suicide behaviour was the aggregating score across all four items measuring lifetime ideation, frequency of thought, threat and likelihood.

Suicide ideation – self reported thoughts about suicide behaviour.

Suicide attempt – a non-fatal self-harm behaviour with the intention to die. An attempt may or may not result in injury.

Completed suicide – death from self-inflicted injury with evidence that the person intended to die.

Attitudes – refers to the way an individual thinks or feel towards suicide. This can be influenced by religion, culture or even stigma.

Peer response – refers to the response (adaptive or non-adaptive) to a peer in crisis.

2.2 Suicide Research in Fiji

Suicide in Fiji may be under reported as cases are mostly documented as police reports. Such records have also shown methods and causes of suicide. Suicidal behaviour was examined in terms of demographics, mental health, personal, social or economic reasons and other factors. In a survey of suicide history in Fiji, Haynes (1987) highlighted that suicidal behaviour was criminalised according to the Fiji Criminal Procedure Code, 1978. During earlier periods of indentured labour, higher incidences of suicide were observed amongst Indo-Fijians. For instance, early records cited by Lal (1985) indicated suicide was generally associated with sexual jealousy and particularly with men and women of Indian descent who worked at the plantations. It was later argued that sexual jealousy as the cause was misleading as other factors were neglected. Factors noted included relocation or emigration, family, religion, caste, kinship and other circumstances arising from the plantation system.

A study conducted by Price and Karim (1975) utilised post mortem and psychiatric hospital cases as well as interviews with families who have experienced suicide behaviour in Suva/Rewa and Ba/Tavua areas. Out of 90 examined cases in the first method, there were 82 Indo-Fijians, 6 iTaukei and 2 as other ethnicity cases associated with suicide. Additionally, of the 90 cases examined, 7 cases received mental health treatment. In terms of the second method, 45 cases were examined and reported to have been mostly related to personal, social and economic factors followed by mental illness and physical illness. It was noted that personal reasons included academic, relationship and family quarrels and at least some exposure to suicide. Male suicide was noted to have been associated with economic factors. Further findings also highlighted a higher incidence of suicide in rural areas and what was surprising was youth as young as 15 years of age were amongst those who reported.

Haynes (1984) examined police and medical records in the province of Macuata in Vanua Levu and found that similar trends were observed in relation to demographic factors for example, higher cases of suicide amongst Indo-Fijians and men. In terms of age, suicide was highest in women under 30 and above 30 years in men. This was also noted with religious demographics as Hindu religious associations correlated with higher suicide rates whereas a Muslim association did not for example.

Rural living was noteworthy as most cases were associated with cane farmers. Other factors also included family and marital conflict, pregnancies and chronic illness later associated with mental health issues such as depression. It was noted that most of the records were from documented police records rather than clinical diagnoses. The reasons for these high incidences of suicide could be due to access to means such as paraquat and the pressure of work associated with daily life and economic pressure.

Further research by Pridmore et al. (1995) utilised the Ministry of Health annual reports based on hospital records to obtain data of deaths due to suicide. Differences in the two major ethnicities were noted in terms of violence to self: Indo-Fijians were six times more likely than iTaukei to self-harm. The findings also noted a difference in self-harm patterns in gender amongst Indo-Fijian, with women accounting for more instances of self-harm than men.

Additionally, the idea that higher incidences of suicidal behaviour was a result of migration was not supported. Pridmore and colleagues argued that there should be considerations and limitations with respect to methods used to identify cases of suicide

in other developing countries. Furthermore, they concluded that cultural factors were a key influence in suicidal behaviour amongst the two major ethnic groups.

Investigations conducted by Booth (1999) in a comparative perspective of the Pacific region highlighted trends of suicidal behaviour. The study utilised published and unpublished records from police, medical and other relevant registered authorities. The comparative investigation included Pacific countries such as Fiji, New Caledonia, Papua New Guinea, Vanuatu, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana, Palau, American Samoa, French Polynesia, Tonga and Western Samoa. Fiji had one of the highest rates of suicide and in Indo-Fijians. It was also noted that suicide rates were highest in men in all the countries, while Fiji and Western Samoa had higher female rates. A similar pattern was identified amongst young people aged 15-24 years old.

Other noteworthy findings were from research which examined characteristics of suicidal behaviour in patients referred for treatment at the CWM (Colonial War Memorial) Hospital in Suva (Aghanwa, 2000). In terms of associated social problems, cases were related to the death of a loved one, interpersonal difficulties with superiors, failure in examinations and embarrassing situations. Associated psychiatric morbidities included acute stress and depressive episodes.

While research conducted highlighted various areas contributing to suicidal behaviour, it is equally important to consider factors relating to culture. In a country report, Chang (2000) indicated that cultural factors within the two major ethnic groups may have contributed to suicidal behaviour. The Indigenous Fijian or iTaukei way of life is experienced through extended families and communal living, and the traditional support system plays a vital role in providing security for the community as a whole. Indo-Fijians, in contrast, tend to live in single-family structures with perhaps higher expectations to do well in school and find better career paths, which could mean that failure is unacceptable. Additionally, the pressure in meeting family demands and other family relations could also contribute to difficulty in coping and may place them at a higher risk of suicidal behaviour. It is important to note that these trends could vary given that current research may have different findings concerning suicidal behaviour in Fiji.

2.3 Suicide Perspective in the Pacific

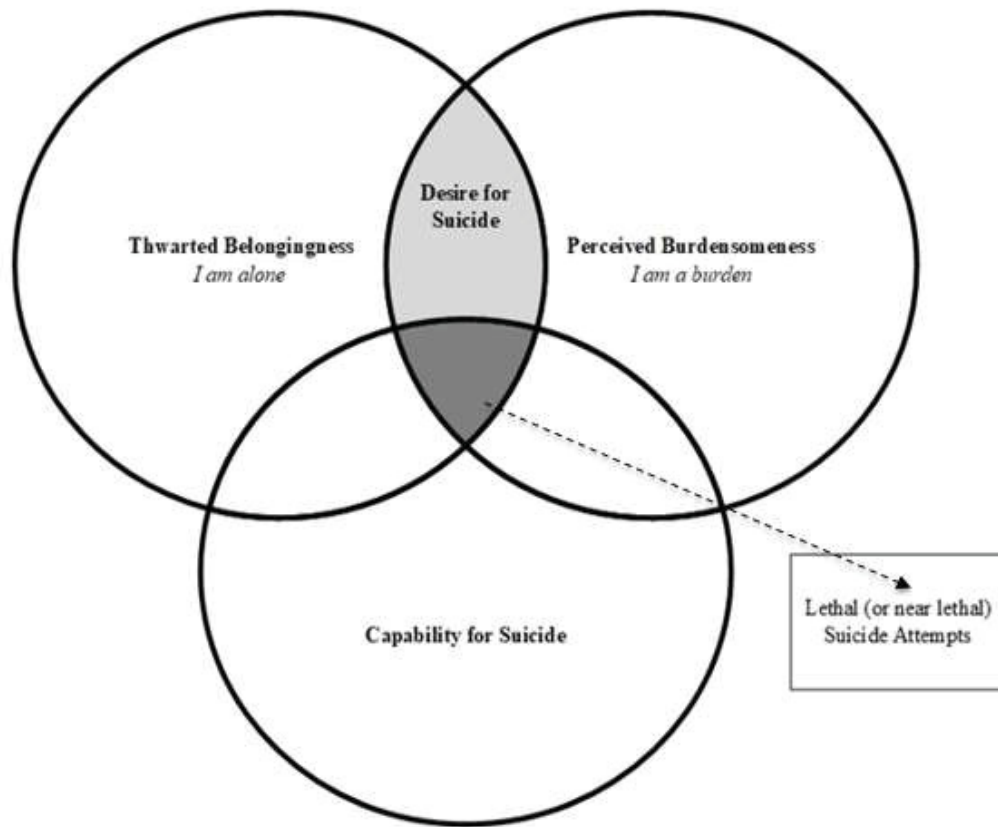
While suicide in the Pacific is complex, understanding the various cultural perspectives can help foster prevention efforts. Pacific people have their own cultural beliefs and attitudes about suicide which influence how they deal with it and associated issues such as mental health. One challenge in particular is the stigma around discussing suicide as it is generally viewed as a taboo/tapu or a forbidden subject. So much so that suicidal behaviour can bring shame to an entire family. In addition, mental health issues in the Pacific is challenging to address as it is generally associated with the supernatural, and traditional healers play a crucial role in treating instances of mental health rather than medical professionals. According to Tiatia-Seath (2017), suicide discussion needs to involve families and communities as a whole rather than just the individual, and due to cultural beliefs that lend themselves to discrimination, taboo, and stigma, Pacific people could be at risk for suicidal behaviour.

2.4 Interpersonal-Psychological Theory of Suicidal Behaviour

Suicide is a complex issue and can be further understood using Joiner's Interpersonal-Psychological Theory of Suicidal Behaviour (Joiner, 2009; Van Orden et al., 2010). The theory asserts that suicide will not occur unless one has the desire and the ability to do so (Van Orden, Merrill & Joiner, 2005). The theory is comprised of three psychological factors which explain suicidal behaviour. The first two factors are: 1) thwarted sense of belongingness and 2) perceived burdensomeness which develops one's desire for suicide (Van Orden, Merrill & Joiner, 2005). According to Joiner et al. (2009), a thwarted sense of belongingness is the experience that one is not part of a family or a valued group, or the feeling of being alienated. Perceived burdensomeness is the view that one's existence is a burden to family, friends or even society. In other words, one will tend to believe that their death would be worthwhile to others in their lives. These two factors can implant the desire for suicide, and severe forms of suicidal ideation are likely to develop (Joiner et al., 2009). Finally, the acquired ability to enact lethal self-injury occurs as a result of the first two factors. Through repeated exposure to pain one can develop a higher pain threshold and eventually become fearless in taking their own life. The third factor must be present in order for suicide to occur, or the ability to do so. Exposure to suicide has been

associated with decreased fear of self-harm and an increased desire for suicide (Joiner et al., 2005). Indeed, Joiner's theory has been supported in several empirical studies amongst prison inmates (Simlot, McFarland & Lester, 2013), clinical populations (Van Orden et al., 2008) and undergraduate students (Van Orden et al., 2008). Figure 2.1 illustrates risk of suicide as per the theoretical model discussed.

Figure 2.1 Assumptions of Interpersonal Theory of Suicide (Van Orden et al., 2010)



The theory also suggests that suicide has a direct correlation with individuals who harbour internal tensions as a result of painful experiences, and that this can have an adverse impact on one's self-preservation. Over time this tension can contribute to increased fearlessness of pain, and even death. Moreover, in a clinical setting, Van Orden et al. (2008) identified that being engaged in painful and provocative experiences including past experiences with suicide, increases a person's acquired ability for self-harm.

Joiner's model provides a context for interpreting various known risk factors of suicidal behaviour in the literature. For instance, exposure to suicide, non-normative sexual orientation, depression, stressful family relations and academic stress may contribute to a thwarted sense of belongingness, perceived burdensomeness, and levels of acquired ability to self-injury. Most importantly, the theory suggests that a sense of belonging could be a key factor in the trend of suicidal behaviour in the Fijian context. It can be argued that the disconnection of family units in society and the sense of being alienated, or not having connections to family and community in general, creates a pathway for the individual to lose the traditional support structure. Over time, the feeling of not belonging to a certain traditional structure creates a response or capability for suicidal behaviour. The increasing rate of suicide amongst youth could be an illustration of the lack of support from traditional social structures and to a certain extent the societal transition from traditional to modern, which adds conflict and pressure amongst youth (Howard, 1986; Deoki, 1987; Hezel, 1987; Macpherson & Macpherson, 1987; Bjerregaard & Lynge, 2006).

2.5 Attitudes and Suicide Behaviour

Research has found various attitudes towards suicide to be linked with suicidal behaviour (Domino, 1988, 1986; Beautrais, Horwood & Fergusson, 2004; Anautovska & Grad, 2010). One of the main attitudes referred to in the literature is permissiveness or the acceptability of suicide. It is the view that individuals have the right to take their own lives including instances of ending an incurable suffering or situations where suicide is the only solution. On the other hand, negative attitudes towards suicide hold the view that suicide can never be justified or that suicide is morally wrong.

Several studies suggest an association between permissive attitudes and suicidal tendencies. For instance, studies by Marcenko et al. (1999) and Beautrais et al. (2004), found that permissive attitudes or tolerance toward suicide was significantly associated with suicidal ideation, and liberal attitudes towards suicide was associated with increased suicidality, respectively. Similarly, Limbacher and Dominio (1986) found that individuals with histories of suicidal ideation or behaviour were reported to have more permissive attitudes towards suicide than those without such histories. This also appears to be the case with university students (McAuliffe, Corcoran & Keeley, 2003) and adolescents (Anautovska & Grad, 2010).

2.6 Attitudes and Peer Response

Generally, mental health treatment is not automatic, nor is it a standard component of the average individual's general health check-up or schedule. As a result, it can be assumed that the first point of support in helping an individual in suicide crisis is unlikely to be a mental health professional. It is more probable that suicidal thoughts and behaviours would be revealed first to a peer, parent, or a trusted friend.

There are likely to be individual differences in responses when faced with a peer considering suicide. Empathy levels are likely to play a role in how people respond to suicide and because empathic individuals tend to be more emotional and more sensitive, they are more likely to assist a person who is at risk of suicide (Mueller & Waas, 2002). Yet, despite empathic responses the attitudes of peers are still strongly predictive of help offered. Kalafat and Elias (1992) found that those who did not have previous exposure to a peer who died by suicide were more likely to take action than those who had. This indicates that real world experience also plays a role in how individuals may respond. Interestingly, Inderbitzen-Pisaruk and Foster (1990) proposed that the reluctance to report, intervene or turn to adults for help for their suicidal peers may be due to personal concerns such as the importance of maintaining confidences on the basis of friendship.

In addition to these individual differences in peer responses, there also appears to be gender differences. Kalafat et al. (1993) and Kalafat and Elias (1992) noted that men, compared to women, were most likely to hold negative views towards seeking help and showed less empathic views towards at-risk peers. Anautovska and Grad (2010) demonstrated that boys were also found to hold negative attitudes towards seeking help and are less likely to intervene when someone is in a crisis compared to girls. They concluded that an adaptive peer response consists of the willingness to intervene, the knowledge of available resources, confidence and empathy to assist a peer in crisis.

From the above, it is clear that understanding various attitudes towards and perceptions of suicide is necessary to inform suicide prevention and intervention efforts which are culturally relevant. There is currently no research on attitudes towards suicide in Fiji hence the proposed study will review significant factors that may influence the attitudes of youth towards suicide. It is critical for baseline cultural

attitudes to be assessed in order to inform culturally appropriate prevention programmes designed to support individuals in crisis.

2.7 Demographic Variables

There are also known demographic variables such as residential location, gender, religion, ethnicity, sexual orientation and social class that relate to suicide risk. These various psychosocial and individual factors may influence one's suicidal behaviour. The following section reviews the relevant demographic factors in the Fijian context in addition to what research has been done on how these factors relate to suicide risk.

Ethnicity. Fiji is an ethnically diverse country consisting of iTaukei or indigenous Fijians, Indo-Fijians, Rotumans, Part-Europeans, Chinese, other Pacific Islanders and mixed backgrounds. The iTaukei make up the majority of the population. Indo-Fijians, or descendants from Indian labourers who were brought by the British during colonial rule, account for the second largest ethnic group. Previous research has shown that suicide risk is more prevalent amongst Indo-Fijians than iTaukei (Morris & Maniam, 2000; Price & Karim, 1975; Haynes, 1987; Aghanwa, 2000; Mathieu et al., 2021). Moreover, there appears to be gender differences within ethnic groups. Indo-Fijian women are more likely to experience suicidal behaviour than Indo-Fijian men (Haynes, 1987; Morris & Maniam, 2000 & Booth, 1999). While there is little known about differences in suicide prevalence between other ethnic groups in Fiji, it is important to note trends, perceptions and attitudes towards suicide of these various ethnic groups. Ethnicity may indicate cultural differences in ways of seeking help, exposure to risk factors, access to means, and the availability of resources.

Age. Generally, suicide amongst young people is higher than it is in the older population. In Fiji, current police reports have indicated attempted suicide and suicide to be highest amongst younger people (Police, 2019). Ministry of Health, New Zealand (2019) reported that generally, youth had the highest suicide rates in the population despite having seen a significant decrease of 35% in youth rate (from 25.9% per 1000,000 in 1996 to 16.8% per 1000.000 in 2016). Past research has also indicated higher suicidal behaviour than earlier records in younger people in Fiji (Aghanwa, 2000; Booth, 1999).

Religion. Fiji is also a diverse population in terms of religion, consisting of Christians, Hindus, Muslims, Sikh and other religious affiliations. In general, there is a negative correlation reported between actual suicidal behaviour and strength of (Christian) religious affiliation (Agnew, 2010). However, in non-Christian contexts suicidal behaviour and attitudes towards suicide can vary according to the specific religious background. For example, Foo et al. (2014) indicated that Buddhist students were more tolerant or had more accepting attitudes towards suicide compared to Muslim students. Similarly, Roberts et al. (2007) found that the suicide rate in Fiji was higher amongst Hindus when compared to other religious groups. This may be a result of religious beliefs influencing individuals to be more accepting of suicidal behaviour. Additionally, some studies suggested that when individuals hold strong beliefs and thoughts about the afterlife, they are more likely to support an individual at risk (Domino & Leenars, 1989; Minton & Spilka, 1976). However, Minear and Brush (1981) argued that when the beliefs of individuals are more structured and they attend religious services more often, they are less likely to be at risk or hold accepting attitudes towards suicide.

Residential Location. While the majority of Fiji's population reside in the city, the population in its rural areas have recently experienced a decline (The Fijian Government, 2018). The 2017 census has highlighted that the reason for the decline is due to the extension of town boundaries and urbanization. Research has indicated that people living in rural areas tend to be at greater risk of suicide compared to those in urban areas (Helbich et al., 2017; Hsu et al., 2015). Additionally, in their longitudinal study of suicide risk in Germany, Helbich et al. (2017) suggested that factors contributing to a greater number of suicide rates may be due to the increased availability of firearms, limited mental health care and decreased interpersonal relations; the latter two resulting in social isolation.

There may also be an interaction between rurality and cultural values. Park et al. (2014) added that Confucian values are major influences amongst rural families in Korea and can be contradicting to those of modern values amongst young individuals and their parents. The incongruence of cultures at home thus creates unclear social expectations, producing anxiety and stress for many in Korean families. In addition, the suicide rates for rural areas tend to surpass those of urban areas. In fact, Nafiza et al. (2012) assessed suicides in Rakiraki, Fiji, and found a similar trend from 2008 to 2011. The study showed a high prevalence of suicide and it was noted that ingestion

of pesticides and household chemicals were the common methods of both attempted and completed suicide. This can be an indication of access to means and a lack of access to mental health care.

Gender. In terms of gender, men make up 50.7% of the population while women account for the other 49.3% in Fiji. In addition, women are the majority in the 60 years and above category, while the number of men is higher below the age of 59 years. It would appear that men and women hold different attitudes towards suicide in that men appear to be more tolerant towards suicide than women (Dahlen & Canetto, 2002; Arnautovska & Grad, 2010). In their review of gender, culture and suicidal behaviour, Canetto and Lester (1998) identified that overall, men are likely to be more at risk than women. Similarly, in Western countries like the United States and Canada, male suicide rates are much higher than females (American Foundation for Suicide Prevention, 2018; Bilsker & White, 2011).

However, the data from Fiji seems to be less consistent: Bhagwan (2017) states that from police report data 56% of completed suicides were by men, in line with what is seen internationally. In contrast, both Booth (1999) and Roberts et al. (2007) report higher suicide rates in Fiji. Aghanwa (2000) indicated suicide attempts were also highest among young women. One potential cause of the Fiji data being different to the data from western nations is discussed by Booth (1999) who also showed the highest rates of suicide was among Indo-Fijian females, suggesting a specific cultural factor that may be unique to Fiji.

Sexual Orientation. While there are a number of groups in Fiji representing Lesbian, Gay, Bisexual and Transgender (LGBTQ+) and considerable advocacy in Fiji to end discrimination and violence against the LGBTQ+ community, minority groups are likely to experience higher incidences of depression and risk of suicide due to discrimination in society (Plant & Sachs-Ericsson, 2004). A longitudinal study in New Zealand found that youth who identify as LGBT were six times likely to have reported one or more lifetime suicide attempts (Fergusson, Horwood & Beautrais, 1999). These findings further demonstrate that there is a strong connection between same-sex sexual orientation and adolescent suicidal thoughts and suicide attempts (Russel & Joyner, 2001; Garofalo et al., 1999; Remafedi et al., 1998). Little is known about the attitudes towards suicide and suicidal behaviour of LGBTQ+ youth in Fiji and the current study may shed light on this issue.

Social Class. Social class may include, but is not limited to, marital status, level of education and occupation. Kim et al. (2006) suggested that a higher suicide risk was associated with lower social class compared to other groups in South Korea. People in lower social classes tend to be more at risk due to social issues such as violence, crime, and financial problems (Buglass, 1976). Additionally, studies conducted in Australia (Taylor et al., 1998) and the United States (Kposowa, 2001) revealed a negative correlation between suicide rates and socioeconomic status. A report by WHO (2019) also indicates that the majority of suicides occur in low-and-middle-income countries. In Fiji, poverty, family issues, relationships, educational needs and marital problems were also breaking points for suicide (Dhabuwala, 2016; Roberts et al., 2007).

2.8 Psychosocial Risk Factors

The common risk factors indicated in past research was focused primarily around demographic factors. The current study intends to identify various risk factors including depression, stress from family, exposure to suicide, academic pressure and stressful events amongst university students.

Depression. The literature on suicide has long established that depression is significantly linked to suicide. A study by Lester (1999) showed that depression was the only factor that predicted current and past suicidal ideation in college students. De Man (1999) also confirmed that, there was a significantly weakened correlation between suicidal ideation and its correlates when the effect of depression was removed. Konick and Gutierrez (2005) found depressive symptoms to be more influential on suicidal ideation than hopelessness. Consistent with previous literature, Roberts et al. (2007) identified that depression was a significant reason for attempted suicide in Fiji as well. More data and information is needed to clearly identify risk of depression.

Stressful Family Relations. Young individuals who tend to struggle with parental or family pressure and high expectations towards academic success may face higher risk of suicide. Indeed, stressful family relations can be a trigger for depressive moods. A study by Park et al. (2014) found that stressful family relations are a contributor to depressive feelings and suicidal behaviour among Korean college students. Additionally, perceived family violence puts young individuals at risk of

suicide (Randell et al., 2006). Very little research has focused on family pressure as a risk factor in the Fijian context.

Exposure to Suicide. Cross cultural research has shown that exposure to suicidal behaviour itself is a risk factor for suicide (Colucci, 2010). A study in New Zealand discovered that individuals with a family history of suicidal behaviour tended to have a more positive or accepting attitude towards suicide compared to those with no history (Beautrais et al., 2004). This finding would suggest that young individuals and their suicidal thoughts can be affected by witnessing close ones who have attempted or completed suicide. Those who have had exposure are more likely to develop suicidal thoughts compared to those who maintain traditional attitudes towards suicide. This relationship also suggests that there may be a subcultural effect among young individuals who are close to their peers or family. In addition, Anautovska and Grad (2010) provided evidence that indicated the presence of a tolerant attitude towards suicide was related to the prevalence of suicide. For instance, accepting attitudes were associated with individuals living in areas where there was a high prevalence of suicidal behaviour, while less tolerate attitudes were associated with individuals living in areas of low prevalence of suicide. Given the reported relatively high rates of suicide in Fiji, the factor of exposure, especially within extended family or village contexts, may be important here. However, little is known about exposure to suicide and its impact on the attitudes of youth in Fiji and more research is needed to clarify the link.

Academic Pressure. Academic pressure may influence the risk of suicide through its association with stress and depressive symptoms. For example, Ang and Huan (2006) measured academic stress, depression and suicidal ideation and found that depression, as a result of academic stress, was associated with suicidal ideation amongst Asian societies. It is also evident in a study by Toero et al. (2001) which showed that the pressure to excel was reflected in children who experienced a high level of stress, and among this group cases of suicide were much higher during the examination period. Similarly, Juon et al. (1994) determined that students experiencing high levels of stress were more likely to have suicidal thoughts and ideation than those who were not. In Fiji, media reports of recent police incidents suggested that poor exam results were amongst the contributing factors towards suicide (Naleba, 2017). There is some indication that this may be due to high expectations and pressure from parents or families particularly among Indo-Fijian

communities (Dhabuwala, 2016). This does suggest that academic performance may be associated in some way with the suicide rates for youth in Fiji and this has led to current discussions about counselling in schools. However, more research is needed to clearly understand the link between academic success and suicide risk as this is a fairly new cultural phenomenon. Additionally, no studies to the author's knowledge address whether support for youth experiencing a suicide crisis varies across higher or lower academic performers.

Stressful Events. General stressors could also be linked to suicide risk. Severely stressful life events can include death of a close family member or loved one, unemployment and financial strains (Pompili et al., 2014). Additionally, it has been reported that deaths by suicide were linked to relationship issues (Liu et al., 2018), physical health problems (Onyeka et al., 2020; Ahmedani et al., 2017), financial issues (Elbogen et al., 2020) and legal issues (Brent et al., 1993).

2.9 Protective Factors and Individual Variables

It is important to note recent trends of suicidal behaviour in individuals given the current context is communal oriented. This is especially significant as a protective factor in suicidal behaviour can be assumed to be a strong family connection. In addition, research into personality and its link to suicidal behaviour and self-compassion as a protective measure and as a predictor of suicide has not been investigated before. It is useful to explore these factors and their relation to suicide to properly address culturally appropriate suicide preventions.

Personality. In recent years, some of the Big Five traits have been linked with suicide. Neuroticism in particular, has been linked to depression, hopelessness, suicidal ideation (Chioqueta & Stiles, 2005; Duberstein et al., 2000) and attempted suicide (Brezo et al., 2006). Additionally, research has shown neuroticism as a reliable predictor of suicidality across men and women when mood disorders are not controlled for (Peters et al., 2018). Livingston et al. (2015) examined the personality profile effects of individuals and found that individuals who were identified as adaptive personalities were more resilient towards victimization which relates to the likelihood of suicidal behaviour. Adaptive personalities were associated with positive coping strategies and higher scores of extraversion, agreeableness, conscientiousness and

openness to experience but an inverse association with neuroticism. Neuroticism was found to be linked to depression and suicidal ideation.

Interestingly, Bluml and colleagues (2013) also found gender differences in which traits were associated with suicide. In women, suicidal behaviour was associated with high levels of neuroticism and openness. These are types of personalities that could reflect impulsive behaviour and maladaptive and ineffective coping strategies. However, for men, suicidal behaviour was associated with low levels of extraversion and conscientiousness. Extraversion on the other hand, as noted in the study, has not been previously found to be particularly associated with suicide risk in men, but has been found to be a relevant risk factor for both men and women. There have been no studies to date assessing the link between personality of youth in Fiji and attitudes towards suicide.

Wellness. Engagement in wellness behaviour brings about positive effects on cognitive-emotional functioning which includes self-esteem and self-efficacy (Myers, Willse & Villalba, 2011). Individuals who are mindful of their suffering and have a better understanding of themselves are less likely to be involved in suicidal behaviour. In a recent study, Rabon, et al. (2017) found that self-compassion, beneficially related to wellness, was associated with less depressive behaviour and less suicidal behaviour. Higher levels of self-compassion can contribute to promoting adaptive approaches to regulate mood or prompt engagement in wellness-promoting behaviour, thus reducing suicidal behaviour. Self-compassion may also protect against suicidality through reducing trauma related symptoms such as post-traumatic stress and by reducing negative internal experiences such as shame and self-blame (Tesh, Learman & Pulliam, 2015). There may be very little to no research addressing wellness behaviour and its impact on suicide in young people in Fiji.

2.10 The Present Study

While the above information indicates some data is available on the basic demographics for suicide cases, there appears to be little investigation into the underlying risks and causes of these suicide rates. Therefore, the purpose of the proposed study is to gain a better understanding of suicidal behaviour and the attitudes associated with suicide and responding to individuals experiencing suicidal behaviour in Fiji. To the researcher's knowledge, this is the first investigation of suicidal

behaviour among Fijian youth beyond reported incidences. The study examines suicidal behaviour and the attitudes towards suicide amongst Fijian youth in relation to several factors: a) demographic variables such as age, gender, ethnicity, current relationship, level of education, sexual orientation, religious affiliation, living situation, location growing up, student status, employment status and exposure to suicide; b) psychosocial or environmental factors such as stress (stressful family relations and academic pressure), and c) individual variables such as personality and self-compassion. Further, the study explores how these factors influence an individual's expected response to another person experiencing suicidal behaviour. This research will extend current literature on suicide in Fiji by evaluating how individual and psychosocial attitudes of youth affect responses to a peer in crisis. Knowledge gained from this research is expected to inform the development of effective, culturally-informed interventions for suicide in the region.

2.10.1 Research Aim:

The study attempts to better understand how demographic variables, psychosocial risk factors and individual variables influence suicidal behaviour, attitudes towards suicide and peer response amongst youths in Fiji.

2.10.2 Objectives:

1. To assess suicidal behaviour and attitudes towards suicide amongst university students.
2. To explore differences across demographics, psychosocial risk factors and individual variables, attitudes toward suicide and suicidal behaviour.
3. To examine peer responses to an individual experiencing suicide.
4. To enhance knowledge and understanding of predictors of suicide.

2.10.3 Research Questions

Question 1 – Risk factors

- a) Which type of stress events are most frequently experienced?
- b) What is the lifetime frequency of suicide exposure in Fijian university students?

- c) Which demographic, psychosocial risk factors and individual variables are most associated with suicidal behaviour?

Question 2 – Attitudes

- a) What perceptions and attitudes do Fijian youth have towards suicide?
- b) To what extent are accepting/ permissive and negative/rejecting attitudes associated with suicidal behaviour?
- c) Which demographic, psychosocial risk factors and individual variables are associated with having accepting/ permissive versus negative/ rejecting attitudes towards suicide?

Question 3 – Peer Response

- a) How are Fijian youth likely to respond to peer suicide behaviour?
- b) What demographic variables and psychosocial risk factors are associated with adaptive peer intervention?

2.10.4 Major Hypotheses

Hypotheses 1: Risk Factors

- a) Death of a loved one (due to large families/communities), academic pressure and stressful family relations will be frequently experienced psychosocial risk factors.
- b) Most Fijian students would have some kind of exposure to suicidal behaviour in their peers or family members in their lifetime.
- c) Suicidal behaviour will be associated with
 - i. Indo-Fijian ethnicity
 - ii. being raised in rural location
 - iii. female gender
 - iv. depression
 - v. perceived stress
 - vi. previous exposure to suicide
 - vii. neuroticism

Hypotheses 2: Attitudes

- a) Negative/rejecting attitudes will be more strongly endorsed than positive/permissive attitudes towards suicide in this population.

- b) Permissive attitudes will be positively associated with suicidal behaviour while negative attitudes will be negatively associated with suicidal behaviour.
- c) Accepting/permissive attitudes will be associated with: a) being male, b) being raised in rural location, c) being LGBTQA+. Rejecting attitudes will be associated with Christian religious affiliation.

Hypotheses 3: Peer Response and Attitudes

- a) Responding to a peer in suicide crisis will be adaptive (as defined by positive responses on the relevant scales, see *Measures* for details).
- b) Adaptive peer intervention will be associated with:
 - a) female gender
 - b) religiosity
 - c) urban location
 - d) previous exposure to suicide.

CHAPTER 3

Methodology

3.1 Participants

Participants were a convenience sample recruited from the currently enrolled student body at USP. The survey was advertised through student email systems and the student associations. Although 326 participants attempted the online questionnaire, 108 were excluded from the study for not completing it. The frequency of missing cases in the remaining 218 completed questionnaires were minimal and appeared to be at random, thus 218 participants were included in the current study.

The vast majority of participants were undergraduates (83%) while the rest were enrolled in post-graduate programmes (17%). Most participants indicated they were full time students (87.2%) and almost half (49.1%) were living with parents, single (61.5%) and unemployed (74%). While growing up, the majority spent most of their time in the city (64.7%). The inclusion criteria for age was 18- to 35-year-olds in this study. The largest age group was 21- to 23-year-olds (42.7%), followed by 18- to 20-year-olds (28.9%), 24- to 26-year-olds (16.5%), and 27- to 35-year-olds (11.9%).

The sample consisted of 135 (61.9%) women and 83 (38.1%) men. In terms of sexual orientation, 202 (92.7%) participants identified as heterosexual and 16 (7.3%) identified as LGBTQA+. For participant ethnic group, 120 (55%) were iTaukei, 72 (33%) Indo-Fijian, and 26 (11.9%) identified with other groups; for example, Rotuman, European, Rabian, Chinese, or mixed ethnicities. About 70.2% of participants described themselves as Christian, 18.8% as Hindu, 8.3% as Muslim and 2.8% as other religious affiliations, including Agnostic, Yahuwan, Atheist or “do not follow a religion”.

3.2 Design

The current study utilised a quantitative approach which included an online self-report questionnaire to gain information on suicidal behaviour, peer response, associated risk factors and attitudes towards suicide. Two rounds of pilot testing were conducted to develop the questionnaire used for the main data collection. The focus

was to provide feedback on the whole survey with regards to length, clarity, ability to sustain focus and the emotional impact of the questionnaire. Modifications were made based on recommendations and feedback to adapt particular items to the sample context and some overlapping subscales were dropped in order to reduce completion time. Demographic data included age, gender, ethnicity, current relationship status, level of education, sexual orientation, religious affiliation, living situation, location growing up, exposure to suicide, student status and employment status. The primary outcome variable of interest in this study was suicidal behaviour. Predictors (independent variables) included demographic variables, risk factors, attitudes, and protective factors.

3.3 Measures

Suicidal Behaviour: The Suicide Behaviour Questionnaire Revised (SBQ-R), developed by Osman et al. (2001), was utilised to assess suicidal behaviour. The SBQ-R has been validated in both clinical and non-clinical settings (Osman & colleagues, 2001) and has been widely and effectively used amongst university students (Cotton, Peters & Range, 1995) and across different cultures (Aloba et al., 2017; Rueda-Jaimes et al., 2017) and groups (Lund et al., 2017). The 4-item self-report measure assesses different dimensions of suicidal behaviour. Item 1 taps into lifetime suicidal ideation and/or attempts, item 2 evaluates the frequency of suicidal ideation over the past twelve months, item 3 assesses the threat of suicide attempt and item 4 evaluates the likelihood of suicidal behaviour in the future. Cronbach's internal reliability coefficient among participants in the present study was $\alpha = .782$, indicating a good internal consistency.

Attitudes towards suicide: This study utilized specific subscales from the Suicide Opinion Questionnaire (SOQ) and the Attitudes towards Suicide Questionnaire (ATTS) to measure various attitudes towards suicide. Table 3.1 provides Cronbach's internal reliability coefficient for the SOQ and ATTS subscales.

The SOQ, developed for cross-cultural use by Domino and colleagues (1982), consists of a 100-item questionnaire assessing attitudes towards suicide. The SOQ has been frequently used for attitudinal research with young people in various cultural contexts: with high school students between cultures (Domino, 1981), and college students from various cultures (Domino et al., 1988; Domino & Leenaars, 1989). It

has also been used in several countries such as Australia, Singapore, Germany and Japan (Domino, 2002; Domino & Groth, 1997; Domino & Takahashi, 1991; Domino *et al.*, 2001). For the purpose of this study, only four out of the eight sub-scales were included: Mental Illness, Religion, Cry for Help and Moral Evil. Responses are rated on a 5-point Likert scale extending from 1 (strongly disagree) to 5 (strongly agree). Higher scores are indicative of a higher level of agreement of the specific attitude.

The ATTS was developed by Renberg and Jacobsson (2003) to measure attitudes towards suicide for intent to use in the general population. Although the ATTS was initially developed in the Swedish population, it is widely used among European countries and research has shown it to be effective across cultures (Kim & Park, 2014; Medina *et al.*, 2012; Mofidi *et al.*, 2008). The current study utilised the second section of the ATTS questionnaire which consists of 37 items. Items derived from the 37-item questionnaire were grouped into eight sub-scales. The sub-scales included attitudes and beliefs about suicide such as Permissiveness, Rejecting, Mental Illness, Preventability, Unpredictability, Reason to Die/Loneliness, Avoidance of Talking/Taboo and Normality. Responses are rated on a 5-point Likert scale extending from 1 (strongly disagree) to 5 (strongly agree).

Based on definitions of the subscales, Permissiveness and Normality in the ATTS were classified as having a generally permissive or accepting attitude towards suicide. On the other hand, Rejecting, Moral Evil and Religion. Sub-scales from both the SOQ and ATTS were classified as rejecting attitudes towards suicide behaviour. All other scales reflected beliefs about the nature of suicide that were neither permissive or rejecting such as Preventability, Mental Illness, Avoidance of Talking/Taboo and Unpredictability.

Depression: The Patient Health Questionnaire (PHQ-9) has been widely used as a self-rating measure in depressive symptoms (Kayrouz *et al.*, 2020; Lowe *et al.*, 2003; Wulsin *et al.*, 2002; and Kroenke, Spitzer & Williams, 2001). The nine-item questionnaire assesses various topics such as “little interest or pleasure in doing things”, “feeling down, depressed or hopeless”, thoughts about feeling bad about yourself” and “thoughts that you would be better off dead” expressed in the past two weeks. Items were scored on the scale ranging from 0 (not at all), to 3 (nearly every day). The internal reliability coefficient for depression as measured in the present sample was $\alpha = .859$.

Peer response: A vignette was developed for the purpose of a peer experiencing suicidal thoughts was read by participants and followed by questions related to their expected emotional and behavioural response to the scenario. Adaptive response is defined as high positive scores on the Likert scale (very concerned, very confident or very likely). For categorical items, the adaptive responses are being able to listen and provide support or make a referral. The peer response was measured with the following five questions: 1) “How concerned would you be”? Responses were measured on a 5-point Likert scale ranging from 1 (very concerned) to 5 (not at all concerned); 2) “How confident are you to help and try to intervene”? The responses were measured on a 5-point Likert scale extending from 1 (very confident) to 5 (not at all confident); 3) “What would you be most likely to do in the above situation”? The responses were: “listen, provide support and seek professional help”, “listen, provide support and contact his friends/ family”, “listen and provide support without involving more people”, “give him some space and ignore the situation” and “talk sternly to him to scare him from making a suicide attempt”; 4) “If necessary where would you refer him for help”? Responses ranged from referral to a lecturer, family member, church minister/pastor/priest or to a mental health service provider; 5) “How likely are you to try to help someone who is suicidal”? Responses were rated on 5-point Likert scale extending from 1 (very likely) to 5 (not likely at all). The aim was to also assess how comfortable participants were in intervening for a peer and their knowledge of available community resources.

Exposure to suicide: Exposure to suicide consisted of questions from the first section of the ATTS (contact with suicide). Participants were asked about their experience with suicide in their surroundings. For instance, if any of their family members or others (relatives, friends, work/school mate) have attempted suicide or have expressed suicidal thoughts, plans or threats.

Stress: These factors were assessed using the Perceived Stress Scale (PSS) and the College Students Stressful Events Checklist. The PSS (Cohen, 1983), designed to use in community samples, is a broadly used psychological measure assessing perception of stress to the extent in which situations in an individual’s life were perceived as stressful. Items in the scale also assessed how unpredictable, uncontrollable and overloaded respondents found their lives to be. For instance, item one asked “In the last month, how often have you been upset because of something

that happened unexpectedly?” Participant responses ranged from 0 (never) to 4 (very often).

Table 3.1 Internal Consistency of SOQ and ATTS Clinical Scales

Sub-Scale	Description	Number of items	<i>N</i>	Cronbach’s alpha (α)
SOQ				
Mental Illness	Suicide reflects mental illness.	13	211	.759
Religion	Higher incidence of suicide is due to the lesser influence of religion.	7	211	.696
Cry for help	Suicide behaviour represents a cry for help and people who try to kill themselves do not really want to die.	12	213	.627
Moral Evil	Suicide is an evil act not to be condoned and a serious moral transgression.	4	215	.556
ATTS				
Permissiveness	Suicide is an acceptable means to terminate an incurable disease and people have the right to take their own lives.	8	212	.730
Mental Illness	Suicide behaviour reflects mental illness.	2	216	.096
Rejecting	Suicide can never be justified.	4	216	.516
Preventability	Suicide can be prevented.	6	216	.275
Unpredictability	Suicide happens without warning.	7	214	.075
Reason to Die/ Loneliness	It is mainly loneliness that drives people to suicide.	2	217	.528
Avoidance of Talking/ Taboo	Suicide is a subject that one should rather not talk about.	4	215	.288
Normality	Almost everyone has at one time or another thought about suicide.	3	216	.354

Note. *N* = Number of participants who completed responses to each subscale

The College Students Stressful Events Checklist (Holmes & Rahe, 1967) assessed events that had happened recently or that were expected to happen. The 32 potential stress items have been modified to apply to university students and may only be an estimate of stress levels and health consequences. Each event in the checklist is

ranked as a significant event that produces stress. Total scores are obtained by adding event values. Scores less than 150 indicate mild stress, scores ranging from 150 to 300 indicate moderate stress and scores above 300 are indicative of severe stress.

Individual variables. Individual variables included measuring self-compassion with the Self-Compassion Scale (SCS) and personality factors with the Big Five Inventory (BFI). The SCS (Neff, 2003) is a 26-item scale in which participants indicate how often they behaved in the stated manner on a scale of 1 (almost never) to 5 (almost always). For instance, “I tried to be loving towards myself when I am feeling down”. For the purpose of this study, only total scores were analysed. Cronbach’s alpha was .902 for the study indicating excellent internal reliability.

The BFI (John & Srivastava, 1999) consists of 44 items that taps into the big five dimensions of personality (Goldberg, 1993) which are: *extraversion*, *agreeableness*, *conscientiousness*, *neuroticism* and *openness*. Participants were asked to indicate the extent to which they agree or disagree on the items in the scale, from 1 (disagree strongly) to 5 (agree strongly). Items for instance are “I see myself as someone who is talkative”. Internal consistency was satisfactory for *extraversion* ($\alpha = .721$), *agreeableness* ($\alpha = .668$), *conscientiousness* ($\alpha = .751$), *neuroticism* ($\alpha = .753$) and *openness* ($\alpha = .531$) subscales.

Religiosity: Participants were asked to indicate their level of religiosity from 1 (very religious) to 3 (not very religious).

3.4 Procedure

The current study was approved by the USP research office and Faculty Research Committee (FRC).

Pilot testing. Two pilot studies were conducted prior to the main data collection to obtain feedback regarding participant perception of the length, clarity, ability to sustain focus and the emotional impact of the questionnaire. Participants were volunteers from the researcher’s friends and colleagues. They were informed that the purpose of the pilot tests was to obtain feedback for improving the questionnaire and that their feedback would be reported anonymously. They were also informed that their responses would remain confidential and not included in the data collection sample.

The first pilot study utilised a paper-pencil method. Data was collected in various ways due to availability of participants. Participants took the survey either

alone or in small groups of two to three. For eight of the 10 participants, the researcher conducted a semi structured oral interview (individually or in a group format) to gather feedback and was available to debrief and answer any questions. The two participants who completed the questionnaire at home provided written feedback in lieu of an in-person interview. Results from the first pilot study were used to make revisions to the questionnaire before testing the online version.

The majority of participants had difficulty completing the questionnaire and retaining focus for two hours. Given that the sample of the pilot were friends of the researcher and the majority held postgraduate degrees, the results are likely to reflect a more generous estimate of the questionnaire length and difficulty level than would be expected in the targeted undergraduate population and provided substantial justification for reducing the length of the questionnaire overall. The SOQ, consisted of 100 items, was frequently referred to as the measure with unclear items, actually took up a considerable portion of participant time and effort. Thus, the following changes to the SOQ were made:

1. Reduction of overall number of items by only selecting the most relevant subscales to the current study for inclusion such as *mental illness, cry for help, religion, right to die, impulsivity, normality, aggression and moral evil*. The final sub-scales that assessed attitudes towards suicide were *mental illness, cry for help, religion and right to die*. The initial SOQ consisted of 100 items. After reduction of sub-scales, only 35 items were used in the final questionnaire.
2. Simplification of wording on items such as “impulsive” and “transgression” on the original SOQ measure that would seem unclear to the targeted sample. Further simplifications were applied to some of the terminology that would better fit the sample.

Further modifications were made to improve the clarity of instructions for the College Student’s Event Checklist, the PHQ-9 and vignette. Instructions for these measures were revised. Moreover, the cultural section of the questionnaire was shifted to proceed other questions in order to provide a better context. For the second pilot study, each participant was sent the online link using the research office’s access to the survey monkey tool. The second pilot study was fully online and included the consent, questionnaire, and debriefing forms. Three of the participants were from the first sample while the remaining two were new volunteers. The specific feedback questions were emailed to participants after the completion of the questionnaire and

they emailed their responses back. Feedback from the second pilot study indicated significant improvement from the previous version and justified use of the revised questionnaire for the main study. All participants completed the questionnaire in an hour or less (well within the estimation of “around one hour” provided on the participant information sheet). The vast majority of participants found the length, clarity, and ability to focus on the questionnaire appropriate. Emotional impact was unanimously reported to be none or minimal. Furthermore, it proved useful to have repeat participants, each of whom offered positive comparative feedback between the current and original version.

Main Data Collection. The online survey was completed using Survey Monkey. Participants were recruited through the university’s iTaukei, Indian and Rotuman student associations, online learning platform (Moodle), social media (for example, Facebook) and USPSA federal office for the general student distribution list (tukutuku). The online link was included with the invitation email. For inclusion in the study, participants needed to be Fijian citizens, between the ages of 18 to 35 and enrolled in either an undergraduate or postgraduate programme at the time of the survey. The intended sample was for 300 participants.

The online survey was made available in three separate parts. The first part consisted of an information sheet, eligibility criteria, online consent form and a list of available resources in the community should participants wish to speak with a mental health professional. After participants confirmed that they met the criteria, the nature and purpose of the research were provided online through the same survey. They were informed that their participation was anonymous and voluntary and were free to withdraw should they decide to do so at any point during the course of the survey.

The second part consisted of the main questionnaire which began with a collection of demographic information such as *age, gender, ethnicity, sexual orientation, religious affiliation, religiosity, location growing up, student status, employment status* and *living situation*. This was followed by the previously mentioned measures assessing suicide behaviour and the other variables of interest.

The third part of the questionnaire collected identifying information in order to provide participants with their cash awards. In order to maintain anonymity, identifying information was stored separately from participant response data. Participants who provided their details in the third part of the survey were then sent an email informing them of the dates, location and time for collection of their incentives.

A co-facilitator was included as an added security measure for distribution of cash incentives. Mobile recharge was utilised as an alternative for reward or incentives during the COVID-19 pandemic lockdown period.

3.5 Data Analysis Plan

Data was analysed using the SPSS statistical software. Prior to performing the main analysis, the data set was screened for non-completers and missing cases. The frequency of missing cases in the remaining 218 completed questionnaires were minimal and appeared to be at random, thus 218 participants were included in the current study. Therefore, missing cases in the current data set, specific to individual subscales, were completed with the list-wise deletion method.

The first phase of data analysis was exploratory and included several components. Preliminary analyses were conducted to calculate descriptive statistics of demographics and other major variables such as suicidal behaviour, attitudes towards suicide, exposure and peer response to examine means and standard deviation in the overall sample. Further analyses were conducted to determine frequencies of demographics, stressful events and peer response. Major hypotheses were tested using comparisons of frequency and descriptive data, correlations, t-tests and regression analyses.

Examination to identify predictors of suicidal behaviour involved multiple regression analyses where significant variables from correlation analysis were grouped into the following categories: 1) Protective Factors, 2) Risk Factors and 3) Attitudes. The significant predictors from these models would be used to inform a final multiple regression model to predict suicidal behaviour. Post hoc analyses would follow as needed.

3.6 Ethical Considerations

The current project has sought to better understand suicidal behaviour, associated risk and attitudes towards suicide amongst youth in Fiji and therefore has assessed issues associated with suicidal behaviour. Participation in the survey was voluntary and anonymous and was not expected to cause any harm to participants. Assessment of suicidal behaviour has been widely used in research dealing with

university students and there is no evidence that talking or thinking about suicide causes suicidal behaviour. The researcher and supervisor have consulted with several psychologists and suicide researchers at other institutions. The consent form and survey questions were consistent with international best practice for research on suicide. The researcher acknowledged that suicide is a culturally sensitive topic in Fiji. Given the rise in youth suicide rates in the region and our limited understanding, there is more risk to youth and the general public to not carry out research on suicide. Knowledge gained from this research is expected to inform the development of effective, culturally-informed interventions for suicide in the region, improve general public awareness about suicide and to encourage the public to seek help in its early stages, thereby reducing the risk of suicide.

Several steps were taken to reduce any potential for harm that could come out of participation in the study. First, the researcher conducted two rounds of pilot testing with a limited number of participants and collected and integrated feedback before the general distribution. Second, participants were provided information on how to seek help for themselves or peers after the consent was provided.

CHAPTER 4

Results

4.1 Descriptive Statistics

Descriptive statistics were conducted to explore information about demographics and variables of interest to examine means, standard deviation in the overall sample in the current study. Refer Table 4.1 for overall sample and breakdown by gender. The frequencies for several variables were also analysed in order to better understand the participant sample of a Fijian university student population.

Table 4.1 Descriptive Statistics for Main Variables

Variables	Overall Sample			Female			Male		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
Suicidal Behaviour	21	6.52	3.12	13	6.91	3.14	83	5.89	3.01
Depression	8			5					
Perceived Stress	21	8.36	5.89	13	8.71	5.85	83	7.79	5.94
	8			5					
Extraversion	21	20.11	6.31	83	20.83	6.38	13	18.92	6.05
	8						5		
Agreeableness	21	26.32	5.31	13	26.14	5.49	81	26.60	5.01
Conscientiousness	2	34.76	4.98	1	35.07	5.08	82	34.25	4.79
	3			1					
Neuroticism	21	32.04	5.79	13	31.81	6.04	83	32.40	5.40
	3	25.08	5.88	1	26.07	6.13	81	23.45	5.08
Openness	21	37.20	4.29	12	37.44	4.07	79	36.81	4.64
	1			8					
	21			13					
	5			4					
	21			13					
	2			3					
Self-Compassion	19	81.67	17.58	12	79.76	18.56	72	84.97	15.32
	6			4					
Stressful Events	21	469.1	232.8	13	444.0	209.8	83	509.9	262.2
	8	6	3	5	6	8		8	0

Note: Gender = 135 women and 83 men

Suicidal Behaviour and Suicide Exposure. The total mean value on the SBQ-R for the sample was 6.52 ($SD = 3.12$). The cut off score for university students is 7 (Osman et al., 1999). For the sample, 36.7% reported lifetime suicidal ideation, 24.3% indicated having had a past suicide plan, 7.8% indicated past attempts.

In terms of exposure, results revealed that 76.1% of students in the sample had some kind of exposure to suicidal behaviour via their peers or family members in their lifetime, which was consistent with assumptions. In particular, findings indicated that the types of suicidal behaviour students experienced as being exposed to were: attempted suicide (57.3%), suicidal ideation, plans or threats (68.3%), suicidal ideation at the very moment of the survey (27.1%) and completed suicide (33%). These results confirmed the hypotheses (H_{1b}) that some form of exposure to suicide would be common among Fijian students.

Stress. The results indicated that the overall perceived stress among the students were moderate ($M = 20.11$, $SD = 6.31$). The most frequently experienced events in the Stressful Events Checklist were: death of a close family member (70.6%), change in eating habits and change in sleeping habits (67%), change in social habits (61%), increased workload at school (57.3%) and change in health of a family member (56.4%). Table 4.2 shows the frequencies of stressful events for the sample.

Table 4.2 College Student's Stressful Event Checklist

Most frequently experienced stressful events	<i>n</i>	%
Death of a close family member	154	70.6
Change in eating habits, Change in sleeping habits	146	67
Change in social habits	133	61
Increased workload at school	125	57.3
Change in health of a family member	123	56.4
Change in lifestyle for financial reasons	120	55
Lower grades than expected	103	47.2
Having to repeat a course	95	43.6
Change in living conditions	90	41.3
Threat to major source of income	89	40.8
Outstanding personal achievement	89	40.8
Serious disagreements with parents	88	40.4
Serious argument with close family member	83	38.1
Change in number of family get together	82	37.6
Problems with a girlfriend or boyfriend	79	36.2
Major personal injury or illness	78	35.8
First semester in college	76	34.9
Death of a close friend	72	33
Responsibilities for others such as children/ spouse	67	30.7
Too many missed classes	57	26.1
Difficulty in identifying a major	45	20.6
Sexual problems	44	20.2
Dropped more than one class	37	17
Change in plans for a major	34	15.6
Minor traffic violations	32	14.7
Serious legal problems	30	13.8
Difficulty with roommates	30	13.8
Divorce between parents	28	12.8
Serious disagreements with instructor	20	9.2
Pregnancy	16	7.3
Chronic car problems	14	6.4

**Items are listed from high to low stressful events*

Consistent with the hypotheses (H1a), the most frequently occurring stressful events were related to academic pressure and stressful family relations. In terms of academic pressure, participants experienced high workload at school (57.3%), having lower grades than expected (47.2%), repeating a course (43.6%), having to repeat a course and first semester in college (34.9%). Other academic related events that happened within a smaller percentage of participants included too many missed classes (26.1%), difficulty in identifying a major (20.6%), dropped more than one class (17%), change in plans for a major (15.6%) and serious disagreements with instructor (9.2%).

Events that indicated stressful family relations occurred within the sample: death of a close family member (70.6%), change in health of a family member (56.4%), serious disagreements with parents (40.4%), serious argument with close family member (38.1%) and responsibilities for others such as children/spouse (30.7). A subset of participants also experienced divorce between parents (12.8%).

In addition to the hypothesized stressful events facing this population, findings indicated that many students experienced major financial related stress: change in lifestyle for financial reasons (55%), threat to major source of income (41%). Other common events were death of a close friend (33%), personal health (35.8%), and sexual problems (20.2%).

Attitudes. The strongest attitude held by the sample was that suicide was preventable (*preventability*, $M = 3.90$, $SD = .42$). Overall, the sample tended to hold more negative attitudes towards suicide (*rejecting*, $M = 3.61$, $SD = .75$; *religion*, $M = 3.20$, $SD = .62$; *cry for help*, $M = 3.13$, $SD = .44$). In fact, they tended to disagree with permissive attitudes (*permissive*, $M = 2.72$, $SD = .75$) as a group. They also disagreed with the attitude that loneliness was a reason for suicide (*reason to die/loneliness*, $M = 2.74$, $SD = 1.05$). On the other hand, attitudes towards suicidal behaviour was influenced by the belief that everyone has at one time or another thought about suicide (*normality*, $M = 3.55$, $SD = .74$) and that it could be talked about (*avoidance of talking/taboo*, $M = 2.72$, $SD = .75$). On the ATTS measure, the mean score was neutral for suicide as a mental illness (*mental illness*, $M = 3.02$, $SD = .67$) and there was slight agreement in the SOQ measure (*mental illness*, $M = 3.35$, $SD = .52$). The overall scores from the sample were also neutral on suicide as an evil act (*moral evil*, $M = 3.00$, $SD = .78$). Thus, the assumptions (H2a) that this sample would strongly hold rejecting attitudes as opposed to permissive attitudes about suicide received support.

Peer Response. Frequency analyses were conducted to determine the likelihood of students responding to peer suicidal behaviour. It was predicted that adaptive responding to a peer in suicide crisis would be adaptive. In terms of being concerned in the given situation, results indicated that the vast majority were concerned (98.6%), very few students were not sure (.5%) and the remainder of the sample were not concerned (.9%). The majority of students indicated that they were confident to intervene (89.4%), 9.6% were not sure and only 1% of students were not confident. Participants indicated that their type of response to a peer in crisis would be to listen, provide support and seek professional help (60.6%), listen, provide support and contact his family/friends (23.4%), listen and provide support without involving more people (14.2%) and talk sternly to him to scare him from making a suicide attempt (1.8%). The referral choice was to a family member (33.5%), mental health service provider (28%), church minister, pastor/priest (26.1%) or university lecturer (12.4%). Finally, the results indicated that students were more likely to try to help someone who is suicidal (96.8%) than being unsure of what to do (3.2%).

Therefore, the prediction for H3a in responding to a peer in suicide crisis was supported. More students were adaptive in their responses: they were concerned, confident to intervene, listen and provide support and make a referral for their peer who was showing signs of suicide behaviour.

4.2 Exploratory Analyses

Suicidal Behaviour. Further, *pearson* and point-biserial correlation analyses were performed to identify the relationship between suicide behaviour and all major variables in the study. Suicidal behaviour was positively and moderately correlated with *depression* ($r = .573, p < .001$) and *perceived stress* ($r = .479, p < .001$), but negatively correlated with *self-compassion* ($r = -.534, p < .001$). Suicide was also found to be positively related to *religiosity* ($r = .209, p < .01$) and *stressful events* ($r = .139, p < .05$), although the linear relationship is weak.

For personality factors, a moderate and positive association was found between suicidal behaviour and *neuroticism* ($r = .494, p < .001$). On the other hand, there were low negative correlations between suicidal behaviour and *agreeableness* ($r = -.208, p < .01$), *conscientiousness* ($r = -.286, p < .001$) and *extraversion* ($r = -.188, p < .01$).

To explore whether certain demographic variables were associated with suicidal behaviour, point-biserial correlations were conducted on *gender*, *sexual orientation*, *religious affiliation*, *location growing up* and *ethnicity*. Results indicated significant, positive correlations between suicidal behaviour and being female ($r = .159, p < .05$) and LGBTQA+ ($r = .257, p < .001$). Additionally, suicidal behaviour was positively associated with past *exposure* of an attempt by a family member, friends, relatives, and work or school mates ($r = .165, p < .05$). Overall, these correlations were low in strength between suicide and the specified demographic variables; *religious affiliation*, *ethnicity* and *location growing up* were uncorrelated.

HIC stated that suicidal behaviour would be associated with a) *Indo-Fijian ethnicity*, b) being raised in rural location, c) *female gender*, d) *depression*, e) *perceived stress*, f) *previous exposure to suicide* and g) *neuroticism*. All variables were associated with more suicidal behaviour as predicted except Indo-Fijian ethnicity and being raised rurally.

An independent t-test was conducted to compare means of gender and suicidal behaviour. On average, women ($M = 6.91, SD = 3.14$) produced significantly higher aggregate scores on the SBQ-R measure than men ($M = 5.89, SD = 3.01$), $t(216) = 2.36, p = .01$). Table 4.3 shows the SBQ-R category means, standard deviations and t-tests results by gender.

Peer response demographics and psychosocial risk factors. Point-biserial correlations and independent t-tests were conducted to determine associations between peer interventions and demographics such as gender, growing up in the city as well as psychosocial risk factors such as religiosity and previous exposure to suicide. We predicted that adaptive peer response would be associated with gender, urban location, religiosity and exposure to suicide. Point-biserial correlations suggested that being concerned was positively associated with identifying as LGBTQA+ ($r = .151, p < .05$) and *Hindu* ($r = .159, p < .05$); however, inversely correlated with identifying as iTaukei ($r = -.170, p < .05$), *heterosexuality* ($r = .151, p < .05$) and *Christian* ($r = -.189, p < .05$). The confidence to intervene was positively associated with *postgraduate students* ($r = .187, p < .05$), having been raised in the city ($r = .143, p < .05$) and *religiosity* ($r = .161, p < .05$). *Undergraduate* students were found to have less confidence to intervene ($r = -.187, p < .05$). Further, the likelihood of the sample to try to help someone who is suicidal positively correlated with *postgraduate* students ($r = .224, p < .05$) and *religiosity* ($r = .156, p < .05$). Being and *undergraduate* was negatively associated with

trying to help ($r = -.224, p < .05$). Overall, the findings indicated that although these were significant correlations, they were weak. *Gender* was not significant and neither was exposure to suicide.

Table 4.3 Means, Standard Deviations and T-Tests for Suicidal Behaviour for Women and Men

Suicidal Behaviour	<i>Women</i> (<i>n</i> = 135)		<i>Men</i> (<i>n</i> = 83)		<i>t</i> -test	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> (216)	<i>p</i>
a) Lifetime ideation and/or past attempts	2.23	0.97	1.84	0.80	3.09	.00
b) Frequency	2.19	1.10	1.84	1.02	2.31	.02
c) Threat	1.35	0.56	1.32	0.56	.38	.70
d) Likelihood	1.12	1.29	0.87	1.28	1.36	.17
Total	6.91	3.14	5.89	3.01	2.36	.01

Independent t-tests were conducted to further investigate the effect of gender however no statistically significant results were found. There were no statistical differences between males and females across items measuring *being concerned* ($t(216) = .71, p = .47$), *confidence to intervene* ($t(216) = -.27, p = .78$), or likelihood to intervene ($t(216) = -.89, p = .37$). Therefore, the predictions that adaptive peer interventions would be associated with the predicted variables were partially supported: *having been raised in the city* and *religiosity* were statistically significant while participant gender and any exposure to suicide were not.

Demographics and attitudes towards suicide. Point-biserial correlations were conducted to determine the association between various attitudes and demographic variables. The hypothesis (H2c) stated that permissive attitudes towards suicide would be associated with being LGBTQA+, *male gender* and *being raised in a rural location*, while rejecting attitudes would be associated with Christian religious affiliation. Results revealed that *permissiveness* was positively correlated with being LGBTQA+

($r = .147, p < .05$), Indo-Fijian ($r = .263, p = .001$), and Hindu ($r = .233, p < .001$) but inversely correlated with being Christian ($r = -.273, p < .001$) and iTaukei ($r = -.286, p < .001$). Therefore, the hypothesis was only partially supported. In fact, being male and being raised rurally were associated with more *rejecting* attitudes towards suicide (male, $r = .147, p < .05$; rural; $r = .165, p < .000$). Being in a relationship also positively correlated with holding *rejecting* views ($r = .187, p < .005$) while “Other” religious affiliation ($r = -.258, p < .005$) was negatively correlated.

The belief that higher incidence of suicide is due to lack of religion (Religion subscale) was associated with those aged 27-35 years old ($r = -.150, p < .05$), male gender ($r = .191, p < .05$), iTaukei ethnicity ($r = .177, p < .05$), Muslim religious affiliation ($r = -.160, p < .05$) and “Other” religious affiliation ($r = -.144, p < .05$). In addition, the opinion that suicide was an evil act not to be condoned (*moral evil*) positively correlated with male gender ($r = .191, p < .005$), iTaukei ethnicity ($r = .241, p = .000$) and *being raised in the village* ($r = .215, p < .005$) but negatively correlated with “Other” *religious affiliation* ($r = -.229, p < .05$). The prediction for *rejecting* attitudes to be correlated with Christian religious affiliation was not supported. Significant inverse correlations, however, were found between Muslim affiliation and *religion*. In addition, “Other” *religious affiliation* was significantly and negatively correlated with *rejecting, religion* and *moral evil*.

The opinion that suicide was a *cry for help* was positively associated with iTaukei students ($r = .204, p < .05$). The belief that suicide is caused by mental illness (*mental illness* SOQ subscale) was positively associated with being LGBTQA+ ($r = .145, p < .05$), Hindu ($r = .176, p < .05$) and living with parents ($r = .168, p < .05$) while negatively associated with those aged 27-35 years old. Further, results indicated that having an opinion that suicide can be prevented (*preventability*) was negatively correlated amongst those aged 21-23 years old ($r = -.141, p < .05$), Indo-Fijian ethnicity ($r = -.149, p < .05$) but positively correlated amongst those in a relationship ($r = .195, p < .005$).

Having suicidal thoughts from time to time (*normality*) was positively correlated with LGBTQA+ ($r = .232, p < .001$) and “Other” ethnicity ($r = .163, p < .05$) more than heterosexual and no significant correlations with Indo-Fijian or iTaukei respectively. On the other hand, having suicidal thoughts from time to time inversely correlated with *heterosexuality* ($r = -.232, p < .001$).

Suicidal Behaviour and Attitudes towards suicide. In order to identify the extent to which suicidal behaviour was associated with various attitudes, bivariate correlation analyses were conducted. Table 4.4 provides a summary of significant correlations between attitudes and suicidal behaviour. As expected, positive attitudes were significantly associated with suicidal behaviour (*permissiveness*, $r = .331$, $p < .001$; *normality*, $r = .376$, $p < .001$) while negative attitudes were inversely associated with suicidal behaviour *rejecting*, $r = -.266$, $p < .001$; *religion*, $r = -.145$, $p < .05$; *moral evil* $r = -.217$, $p < .01$).

In addition, *mental illness-ATTS* was found to be positively correlated with suicide ($r = .188$, $p < .01$). The predictions (H2b) that positive attitudes would be positively associated with suicidal behaviour while negative attitudes would be negatively associated with suicide behaviour were fully supported.

Table 4.4 Correlations between Attitudes and Suicidal Behaviour

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Suicide Behaviour													
2 Permissiveness	.331**												
3 Mental Illness - ATTS	.188**	.478**											
4 Rejecting	-.266**	-.170*	.053										
5 Preventability	-.124	-.175*	-.121	.336**									
6 Unpredictability	.086	.196**	.270**	0.13	-.014								
7 Reason to Die / Loneliness	.12	.339**	.262**	.034	-0.09	.311**							
8 Avoidance of Talking / Taboo	.041	.316**	.247**	.188**	-.042	.367**	.392**						
9 Normality	.376**	.401**	.258**	.012	.086	.09	.196**	.147*					
10 Mental Illness - SOQ	-.004	.258**	.445**	.196**	.081	.299**	.364**	.336**	.075				
11 Religion	-.145*	-.058	.215**	.359**	.129	.250**	.186**	.227**	-.027	.599**			
12 Cry for Help	-.086	.084	.270**	.312**	.077	.381**	.243**	.322**	.047	.475**	.515**		
13 Moral Evil	-.217**	-.146*	.088	.465**	.096	.186**	.101	.217**	-.143*	.463**	.630**	.490**	

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

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

Personality factors and attitudes towards suicide. Correlation analyses were also conducted to determine the relationship between personality and various attitudes. *Neuroticism* was positively correlated with *permissiveness* ($r = .266, p < .001$) and *normality*; ($r = .282, p < .001$) while *conscientiousness* was negatively correlated with both *permissiveness* ($r = -.156, p < .05$) and *normality* ($r = -.187, p < .05$). Indeed, *conscientiousness* was positively correlated with *rejecting* attitude ($r = .207, p < .05$) as was *extraversion* ($r = .215, p < .05$). *Extraversion* was also associated with the belief that suicide is due to lack of religion (*Religion*, $r = .150, p < .05$). Further, *extraversion* ($r = .195, p < .05$) and *neuroticism* ($r = -.221, p < .001$) were found to be correlated with suicide as a *cry for help*. *Openness* to experience was negatively associated with avoidance of talking about suicide (*Taboo*, $r = -.151, p < .05$). Notably, *neuroticism* was the only personality factor that was negatively correlated with *preventability* (*neuroticism*, $r = -.219, p < .01$; *extraversion*, $r = .304, p < .01$; *agreeableness*, $r = .235, p < .01$; *conscientiousness*, $r = .181, p < .05$).

Self-compassion and attitudes towards suicide. Correlation analyses revealed that *self-compassion* was associated with less accepting attitudes towards suicide (*permissiveness*, $r = -.240, p < .001$; *normality*, $r = -.263, p < .001$). *Self-compassion* was also associated with rejecting attitude towards suicide (*rejecting*, $r = .247, p < .01$) and less judgmental attitudes (*religion*, $r = .186, p < .01$; *moral evil*, $r = .186, p < .01$).

The following table summarizes the findings of the major Hypotheses.

Table 4.5 Summary of Major Hypotheses

Research Question	Hypotheses	Type of analysis	Hypothesis Supported/Partially supported/Not Supported
1. Risk factors a) Which type of stress events are most frequently experienced?	H _{1a} : Death of a loved one (due to large families/communities), academic pressure and stressful family relations will be frequently experienced psychosocial risk factors .	Frequencies	H _{1a} : Death of a loved one (supported); academic pressure (supported); stressful family relations (supported)
b) What is the lifetime frequency of suicide exposure in Fijian university students?	H _{1b} : Most Fijian students would have some kind of exposure to suicidal behaviour in their peers or family members in their lifetime.	Frequencies	H _{1b} : Exposure to suicide – supported
c) Which demographic, psychosocial risk factors and individual variables are most associated with suicide behaviour?	H _{1c} : Suicidal behaviour will be associated with: a) Indo-Fijian ethnicity b) being raised in rural location c) female gender d) depression e) perceived stress f) previous exposure to suicide g) neuroticism	Correlations /t-tests	H _{1c} : a) Indo-Fijian ethnicity - not supported b) being raised in rural location - not supported c) female gender - supported d) depression - supported e) perceived stress - supported; f) previous exposure to suicide - not supported g) neuroticism - supported.
2. Attitudes a) What perceptions and attitudes do Fijian youth have towards suicide?	H _{2a} : Negative/rejecting attitudes will be more strongly endorsed than positive/permissive attitudes towards suicide in this population.	Frequencies / skewness, M of averages (not total score), SD	H _{2a} : Supported

b) To what extent are accepting/ permissive and negative/ rejecting attitudes associated with suicide behaviour?	H _{2b} : Permissive attitudes will be positively associated with suicide behaviour while negative attitudes will be negatively associated with suicide behaviour.	Correlations	H _{2b} : Supported
c) Which demographic, psychosocial risk factors and individual variables are associated with having accepting/ permissive versus negative/ rejecting attitudes towards suicide?	H _{2c} : Accepting/ permissive attitudes will be associated with: a) being male, b) being raised in rural location, c) being LGBTQA+. Rejecting attitudes will be associated with: a) Christians and b) Hindu religious affiliation.	Correlations	H _{2c} : a) being male – not supported b) being raised in rural location – not supported c) being LGBTQA+ - supported Rejecting attitudes will be associated with: a) Christians – not supported
3. Peer response a) How are Fijian youths likely to respond to peer suicide behaviour?	H _{3a} : Adaptive responses to a peer in suicide crisis would be adaptive.	frequencies of responding / percentages	H _{3a} : Supported
b) What demographic variables and psychosocial risk factors are associated with adaptive peer intervention?	H _{3b} : Adaptive peer intervention will be associated with: a) female gender b) religiosity c) urban location d) previous exposure to suicide.	correlations / t-tests	H _{3b} : Partially Supported a) female gender - not supported b) religiosity - supported c) urban location - supported d) exposure - not supported

4.3 Multiple Regression Analyses

Standard multiple regression analyses were conducted to assess the significant predictors of suicidal behaviour. Several analyses were conducted with the intention of creating a revised overall model that better predicted suicidal behaviour than the initial multiple regression models. For each multiple regression analysis, suicidal behaviour (aggregated score on the SBQ-R) was the only dependent variable predicted.

Selection of Continuous Variables. In order to determine which predictor variables of suicidal behaviour to include, the exploratory correlational and t-test analyses were referenced. All variables with a significant correlation with suicidal behaviour were selected. Of the main variables, this included: *depression, perceived stress, stressful events checklist, religiosity, and self-compassion*. All of the Big 5 personality factors were included, except *openness to experience*. Only six of the 12 attitudes were significantly correlated with suicidal behaviour and included: *permissiveness, mental illness – ATTS, rejecting, normality, religion and moral evil*.

A preliminary multiple regression analysis was conducted to confirm if there were any other attitudes that were not significant in correlational analyses and that were suppressed in binary analyses but might predict suicide behaviour using multiple regression methods. All 12 attitudes from both ATTS and SOQ measures were included in a multiple regression analysis predicting suicidal behaviour: *permissiveness, rejecting, mental illness-ATTS, preventability, unpredictability, reason to die/loneliness, avoidance of talking/taboo, mental illness-SOQ, religion, cry for help and moral evil*. The overall attitude model was significant $F_{12, 192} = 5.346, p < .001$ with an R^2 of .250, explaining 25% of the variance in suicidal behaviour. Only Rejecting ($\beta = -.204, p < .009$) and *normality* ($\beta = .310, p < .001$) attitudes towards suicide, however, were significant predictors. As such, no additional attitudes were selected for inclusion in the main multiple regression analyses.

Selection of Dichotomous Variables. The only correlated demographic variables were gender, sexual orientation and suicide exposure (attempt). In order to check whether there were any other demographic variables that could predict suicidal behaviour through a multiple regression analyses, a confirmatory model was run. Dichotomous variables consolidated into two categories and were dummy coded. For instance, having any kind of suicidal behaviour exposure versus none reported at all. All demographic variables (including those with non-significant correlations with

suicidal behaviour) were added as predictor variables in a standard multiple regression using the Enter method with suicidal behaviour as the predicted variable. There were a total of 24 demographic predictor variables included in the first multiple regression analyses: 3 *age groups* (*age group 1* – 18-20; *age group 2* – 21-23; *age group 3* – 24-26), *gender* (male, female), *sexual orientation* (heterosexual, non-heterosexual/LGBTQA+), 2 *ethnicities* (Indo-Fijian and non-IF, iTaukei and non-iTaukei), *relationship status* (Single, In a relationship), *level of education* (Undergraduate, Postgraduate), 3 *religious affiliations* (Hindu and non-Hindu, Christian and non-Christian, Muslim and non-Muslim), *living situation* (6 categories: living alone vs not, living with roommates vs not living with roommates, living with parents vs not living with parents, living with relatives vs not living with relatives, living with partner and children vs not living with partner and children), *location growing up* (village vs non-village), *student status* (full-time, part-time), *employment status* (employed, unemployed) and *suicide exposure* (attempt, ideation, suicidal at the very moment and completed).

In examining the contributions of these predictor variables, the overall model was significant $F_{24, 193} = 2.502$ $p < .001$ with an R^2 of .237, indicating these demographics explained 23.7% of the variance. Of the dichotomous variables assessed, *gender* ($\beta = -.24$, $p < .002$), *sexual orientation* ($\beta = -.287$, $p < .001$) and *exposure to an attempted suicide* ($\beta = .320$, $p < .001$) remained the only statistically significant predictors of suicidal behaviour. Other demographic variables were not significant in the multiple regression analyses.

Main Multiple Regression Models. Once variables had been selected for inclusion, they were classified into categories: protective factors, risk factors and attitudes. Model 1 included variables that had inverse correlations with suicidal behaviour and were classified as “protective factors.” These were *extraversion*, *agreeableness*, *conscientiousness* and *self-compassion*. Model 2 included variables that positively correlated with suicidal behaviour and were classified as “risk factors.” Under risk factors were *depression*, *perceived stress*, *stressful events checklist*, *religiosity* and *exposure to attempted suicide* (included as a quasi-demographic variable). Model 3 was classified as “Attitudes” which included the six statistically significant attitudes that correlated with suicidal behaviour regardless of whether the relationship was positive or negative: *permissiveness*, *mental illness-ATTS*, *rejecting*,

normality, religion and *moral evil*. Results of each model and the significant predictors are included in Table 4.6.

Model 1 yielded *self-compassion* ($\beta = -.525, p < .001$) as the only significant predictor and a protective factor of suicidal behaviour. Overall, the model was significant $F_{4, 184} = 18.803, p < .001$, with an R^2 of .290, predicting 29% of the variance.

Table 4.6 Standard Multiple Regression: Models 1, 2, 3 and 4

Model Variables	β	<i>SE</i>	<i>t</i>	<i>p</i>
Model 1				
Constant		1.550	9.274	.000
Extraversion	.046	.041	.663	.508
Agreeableness	.017	.045	.245	.807
Conscientiousness	-.077	.040	-1.035	.302
Self-compassion	-.525	.013	-7.082	.000
Model 2				
Constant		.903	-.335	.738
Exposure (attempt)	.074	.341	1.369	.172
Religiosity	.123	.278	2.286	.023
Depression	.425	.037	6.052	.000
Perceived Stress	.057	.038	.747	.456
Neuroticism	.250	.035	3.737	.000
Stressful Events	-.068	.001	-1.199	.232
Model 3				
Constant		1.621	2.418	.017
Permissiveness	.130	.040	1.691	.092
Mental Illness	.072	.115	.971	.333
Rejecting	-.221	.074	-3.091	.002
Normality	.303	.096	4.395	.000
Religion	-.047	.058	-.573	.567
Moral Evil	-.029	.086	-.333	.739
Model 4				
Constant		2.196	1.740	.084
Self-compassion	-.174	.013	-2.366	.019
Depression	.365	.032	5.964	.000
Religiosity	.091	.280	1.688	.093
Neuroticism	.110	.038	1.543	.125
Rejecting	-.134	.057	-2.548	.015
Normality	.219	.077	3.984	.000

Note: $R^2 = .290$ for Model 1; $R^2 = .423$ for Model 2; $R^2 = .242$ for Model 3 and $R^2 = .493$ for Model 4.

According to the regression analysis, Model 2 was significant, $F_{6, 208} = 25.414$, $p < .001$, with an R^2 of .423. This indicated that the risk factors predicted 42.3% of the variance. *Depression* ($\beta = .425$, $p < .001$), *neuroticism* ($\beta = .250$, $p < .001$) and *religiosity* ($\beta = .123$, $p < .023$) significantly predicted suicidal behaviour.

The results of the regression analysis for Model 3 revealed *normality* ($\beta = .303$, $p < .001$) and *rejecting* ($\beta = -.221$, $p = .002$) attitudes as significant predictors of suicidal behaviour. The results also indicated attitudes explained 24.2% of the variance in suicidal behaviour, $F_{6, 198} = 10.553$, $p < .001$, with an R^2 of .242.

Revised Multiple Regression Model. Finally, significant predictor variables were combined to create an overall model; Model 4, predicting suicidal behaviour. There were 6 significant variables included from Models 1, 2 and 3: *self-compassion*, *depression*, *neuroticism*, *religiosity*, *rejecting* and *normality*. The overall model explained 49.3% of variance, indicating significance, $F_{6, 187} = 30.326$, $p < .001$ with an R^2 of .493. Model 4 yielded *self-compassion* ($\beta = -.174$, $p < .05$), *depression* ($\beta = .365$, $p < .000$), *rejecting* ($\beta = -.134$, $p < .05$) and *normality* ($\beta = .219$, $p < .001$) as significant predictors of suicide. *Self-compassion* and *rejecting* were negative predictors of suicidal behaviour. The β for all other risk and protective factors as well as attitudes indicated no unique contributions.

To ensure that no other demographic variables were significant contributors to suicidal behaviour, each model above was run with 20 demographic factors (this does not include exposure to suicide which is not a standard demographic variable). For Model 1, results indicated that the model explained 37% of the variance in suicidal behaviour and that it was significant ($F_{24, 164} = 4.036$, $p < .001$). *Sexual orientation* was the only significant contributor to suicidal behaviour ($\beta = -.209$, $p < .05$). Model 2 indicated that *gender* ($\beta = -.144$, $p = .02$) and *sexual orientation* ($\beta = -.209$, $p = .001$) were the only significant predictors of suicidal behaviour, with an inverse relationship. The regression results for Model 3 indicated that *sexual orientation* ($\beta = -.180$, $p = .008$) and surprisingly, *living alone* ($\beta = -.150$, $p = .043$) were significant predictors. Finally, it was found that *employment status* was the only significant demographic variable in the Model 4 regression. Both *living alone* and *employment status* were added separately to the original Model 4 regression and neither were significant. Therefore, *gender* and *sexual orientation* were the only demographic variables included for additional analyses.

Analysis by Gender. Because gender was a significant demographic factor, a comparative analysis of the models was run separately for men and women. A total of eight models were run with four per gender. All models were significant and the results for each are outlined below. Model 1 explained 28.5% of the variance in suicidal behaviour for both separate models. Likewise, *self-compassion* (women, $\beta = -.542, p < .001$; men, $\beta = -.473, p < .001$) was the only significant protective factor in both models. Statistics for the overall models for women and men, respectively were ($F_{4, 112} = 11.15, p < .001$) with an R^2 of .285 and ($F_{4, 65} = 6.48, p < .001$), R^2 of .285.

In terms of risk factors, Model 2 with women explained 39% of the variance (R^2 of .391, ($F_{6, 127} = 13.59, p < .001$)). Model 2 with men predicted 49% of the variance ($F_{6, 74} = 11.74, p < .001$), R^2 of .488. The significant risk factors of suicidal behaviour for women were *depression* ($\beta = .389, p < .001$), *religiosity* ($\beta = .196, p = .006$) and *neuroticism* ($\beta = .259, p = .003$). On the other hand, *depression* ($\beta = .536, p < .001$) was the only significant risk factor amongst men.

Model 3 with women had an R^2 of .206, ($F_{6, 120} = 5.18, p < .001$), with a variance of 20.6%. *Rejecting* ($\beta = -.204, p = .041$) and *normality* ($\beta = .222, p = .018$) attitudes were significant contributors. The model with men had an R^2 of .322 ($F_{6, 71} = 5.63, p < .001$) and predicted a unique variance of 32% which was higher than the female model. However, *normality* ($\beta = .422, p < .001$) was the only significant attitude for men.

Finally, the regression results for the overall model, Model 4 for women had an R^2 of .461, ($F_{6, 115} = 16.40, p < .001$), predicting 46% of the variance in suicidal behaviour. Significant predictor variables for women included *self-compassion* ($\beta = -.203, p = .039$), *depression* ($\beta = .327, p < .001$), *religiosity* ($\beta = .151, p = .035$) and *normality* ($\beta = .189, p = .009$). The male overall model had an R^2 of .553, ($F_{6, 63} = 12.99, p < .001$), and predicted 55% of the variance. However, *depression* ($\beta = .483, p < .001$) and *normality* ($\beta = .280, p = .005$) were the only significant factors.

The overall model with males predicted more suicidal behaviour with *depression* and *normality* being significant factors in the models for both men and women. *Self-compassion* was significant for both genders in the Model 1 regressions examining protective factors, but only remained significant in the final model for women. The models with women revealed additional significant variables: *religiosity*, *neuroticism*, and *rejecting* attitudes towards suicide, but only *religiosity* remained significant in the overall Model 4 for women along with *self-compassion*.

Analysis by Sexual Orientation. Because *sexual orientation* was also a significant demographic factor, a comparative analysis was attempted between LGBTQA+ and heterosexual participants as was done for *gender*. However, a multiple regression analysis was not possible with only 16 participants identifying as LGBTQA+ in the sample. An assumption of multiple regression analysis requires at least 15 participants per predictor in order to predict an effect (Stevens, 1996). Instead, independent correlational analyses were conducted in the LGBTQA+ sample to examine which variables were associated with suicidal behaviour. Interestingly, *unemployment status* ($r = -.701, p < .01$) was inversely and strongly correlated in the LGBTQA+ sample and was the only significant factor out of demographics, main variables, and attitudes.

The four models with the heterosexual group included 202 participants and resulted in the same significant variables as the models with all participants as expected. The first model with the heterosexual group predicted 28% of the variance, and the model was significant, R^2 of .283, ($F_{4, 169} = 16.65, p < .001$). *Self-compassion* ($\beta = -.517, p < .001$) was the only significant protective factor. In terms of risk factors, the analysis indicated significance of the model, with an R^2 of .41, ($F(6, 193) = 22.35, p < .001$). *Depression* ($\beta = .412, p < .001$), *religiosity* ($\beta = .141, p = .013$) and *neuroticism* ($\beta = .248, p = .001$) were statistically significant risk factors for suicidal behaviour. Model 3 was significant with an R^2 of .227, ($F_{6, 193} = 22.35, p < .001$) with the group predicting 23% of the variance. *Rejecting* ($\beta = -.213, p = .005$) and *normality* ($\beta = .268, p < .001$) were significant attitudes towards suicide. The overall model predicted 48% of the variance and the model was significant, with an R^2 of .481, ($F_{6, 172} = 26.52, p < .001$). The overall significant predictors were *self-compassion* ($\beta = -.170, p = .027$), *depression* ($\beta = .351, p < .001$), *rejecting* ($\beta = -.140, p = .016$) and *normality* ($\beta = .202, p = .001$). As expected, these models had the same significant variables as the models with the overall sample.

CHAPTER 5

Discussion

The current study sought to better understand suicidal behaviour, risk factors, attitudes associated with suicide and peer response amongst youth in Fiji from a university sample. The study was the first to examine beyond prevalence and demographics associated with suicidal behaviour in Fiji's younger population.

5.1 Suicidal Behaviour, Exposure and Peer Response

A key finding from the study revealed that 36.7% of the sample reported lifetime suicidal ideation, 24.3% had a past suicide plan and 7.8% reported prior suicide attempts. Moreover, 76.1% of students in the sample had some kind of exposure to suicidal behaviour via their peers or family members in their lifetime. The predication of student exposure to suicidal behaviour was fully supported (H1b) and overall suggests that the vast majority of students have experienced suicidal behaviour whether personally, exposure from their peers, family members, or school mates and/or co-workers. These findings suggest that other prevalence research, which has focused on completions, vastly under-estimates the prevalence of suicidal behaviour experienced by university students in Fiji where suicidal ideation is common and exposure is the norm. Indeed, the results confirmed the importance of investigating suicidal behaviour in relation to ideation, plans and exposure rather than completion estimates alone. Previous research has shown that exposure to suicide is associated with suicide risk (Campos et al., 2017; Swanson & Colman, 2013; Mitchell et al., 2019; Wong et al., 2005; Ho et al., 2000). The results from this study are consistent with previous research as suicidal behaviour was positively correlated with exposure to an attempt by a family member, friend, relative, work or school mate.

The frequency of suicidal behaviour and exposure in this sample may explain why the majority of participants felt prepared to respond to a peer in crisis (H3a). The majority of students were concerned (98.6%) about a peer in crisis and were confident to intervene (89.4%) in order to prevent further harm to their peer. There were no gender differences or psychosocial risk factors such as exposure, as in Kalafat and Elias, (1992), affecting likelihood of responding adaptively as originally predicted

(H3b). LGBTQA+ students and those with Hindu religious affiliation, however, were significantly correlated with being more concerned than iTaukei and Christian students. Additionally, postgraduate students reported being more confident and likely to help than undergraduates. Religiosity and being raised in the city, were also associated with having more confidence to intervene than their less religious and rural peers. It could be that being raised in the city may have the advantage of access to available resources and greater awareness of risks associated with suicidal behaviour. Although prior research from Fiji has not looked at adaptive peer intervention, these results suggest that Fijian youth are likely to intervene in suicide crisis beyond expectations. Overall, university students appear to understand the importance of seeking help, in addition to being knowledgeable of available resources in the community.

5.2 Depression and Stress

There is a link between suicidal behaviour, depression and stress (Izadin et al., 2010). Suicidal behaviour is a symptom of depression, and stress may co-occur with symptoms of depression. Consistent with previous research, more suicidal behaviour in this study was associated with increased levels of depression (Reyes-Rodriguez et al., 2012; Farabaugh et al., 2012) in university samples. In line with the first major hypothesis (H1a), the university sample reported moderate stress from multiple sources, including some related to academic pressure. Some stressors, such as changes in eating, sleeping and social habits, may be expected in adjustment to university lifestyle. Notably, this Fijian sample reported more family related stressors than Western samples in other countries (Fjeldsted et al., 2017; Crandall et al., 1992), such as death of a close family member and family conflict. Considering the cultural aspect of connection and shared values and responsibilities, family related stress was expected among both major ethnic groups in Fiji. The high frequency of death of a family member was not surprising given that Fijians have lower life expectancy compared to Western samples and health issues such as Non-Communicable Diseases (NCDs) which have been on the rise (Phillips et al., 2019). Other stressors reported in the sample were related to financial, personal health and sexual problems. Additionally, total scores of the stressful events checklist were correlated with suicidal behaviour in the exploratory analyses along with depression and perceived stress (H1c)

and, as such, were included in the multiple regression models. Although stressful events and perceived stress were included as predictor variables in Model 2, neither variables were significant predictors. Depression, on the other hand, was one of the strongest predictors of suicidal behaviour overall (Model 4). This finding suggests that while coping skills for stress could be an important target for intervention with Fijian college students, depression is a more important focus. The association between depression and stress was outside the scope of the present study and future research could investigate if there is a direct or indirect relationship between the variables on suicidal behaviour.

5.3 Demographics

Findings were not consistent with previous literature on suicide in Fiji concerning ethnicity, religious affiliation or being raised in a rural area. There was no evidence that Indo-Fijian ethnicity, being Hindu or based rurally was associated with increased suicidality in this study as hypothesized (H1c). It is possible that these findings are due to university students being a more homogenous group compared to the community samples of previous studies. Perhaps the university experience is more transcultural/multicultural than expected and therefore more salient than ethnicity. Replicating this study in a community sample is suggested for future research.

As predicted, being female was associated with more suicidal behaviour in the present study (H1c). This finding supports some (but not all) of the past data from Fiji and does suggest that there may be some difference between suicide risk and suicidality in Fiji compared to other western countries where men are far higher suicide rates. It is of interest that the most recent police records (Fiji Police, 2020) on completed suicides does tend to uphold the male majority which was not shown in the present study. This could be explained by the differential impact of gender on suicidal ideation versus suicidal completion as has been discussed in other literature.

Since gender was a significant predictor, separate multiple regression models were conducted and significant variables from the revised model (Model 4 for women) are discussed in the following sections.

Identifying as LGBTQA+ was positively correlated with suicidal behaviour and consistent with previous research in other countries (Stone et al., 2014; Fergusson et al., 1999). Similar to other countries (D'augelli, 2002; McCabe et al., 2010; Bouris

et al., 2016), LGBTQA+ students in Fiji tend to experience more discrimination and victimisation compared to their peers and they are therefore placed at an elevated risk for suicidal behaviour. Moreover, discrimination, stigma and violence towards the LGBTQA+ community is reflected in research in Fiji.

In addition, being unemployed was significantly correlated with LGBTQA+ identity in this dataset which implies barriers such as discrimination and harassment at work and lack of community acceptance. Since this was not a primary focus of the current study, there were not enough participants to conduct multiple regression analyses on predictors of suicidal behaviour in this group. This remains an important area for future research.

5.4 Attitudes

The second major hypotheses concerned various attitudes towards suicide. The sample as a whole held stronger *rejecting* attitudes towards suicide than *permissive* ones as predicted (H2a). As expected, *rejecting* attitudes were correlated with less suicidal behaviour while, *permissive* attitudes were correlated with more suicidal behaviour (H2b). An additional attitude that correlated significantly with suicidal behaviour was the belief that suicide is due to *mental illness*; this may be an accurate perception given the findings regarding depression as a predictor. Overall, the belief that suicidal behaviour is *preventable* was strong among the sample which may explain student willingness to intervene and help a peer in crisis. Surprisingly, *normality*, the opinion that almost everyone at one time had thought about suicide, was strongly endorsed in the sample.

Although correlational analyses cannot indicate causal relationships, they may reveal demographic differences in attitudes that could be useful in designing culturally appropriate suicide awareness interventions. For instance, Hindu religious affiliation and Indo-Fijian ethnicity were both significantly correlated with *permissive* attitudes while the relationship was inverse for Christian affiliation and iTaukei ethnicity. Previous research suggests increased tolerance towards suicide in the Hindu faith (Thimmaiah et al. 2016; Gearing & Lizardi, 2009; Kamal & Loewenthal, 2002). Hindu religious affiliation was also positively correlated with *mental illness* which may explain that suicidal behaviour tends to be viewed as due to a mental illness (opposed to *moral evil*, *avoidance of talking* and *rejecting* attitudes). Notably, Indo-Fijian

ethnicity was the only ethnic group negatively associated with *preventability* which could indicate a more resigned attitude than other groups and is to be taken seriously (negatively associated with *cry for help*). iTaukei ethnicity was associated with the belief that suicidal behaviour is due to a lack of *religion* and a *cry for help*.

However, rejecting attitudes were not correlated with either Christians or Hindus (as originally predicted in H2c), nor Muslims. ‘Other Religious affiliation’, was inversely associated with *rejecting* attitudes. Therefore, differences in these major religious backgrounds in Fiji do not appear to be related to differences in *rejecting* attitudes (only *permissive* ones in the case of Hinduism). This further indicates that *rejecting* and *permissiveness* attitudes appear to be separate, rather than opposing, constructs.

Being raised rurally was also associated with having *rejecting* and *moral evil* attitudes which is consistent with more traditional values of suicide being a taboo subject. Predictions that being raised rurally would be associated with more *permissive* attitudes were unsupported (H2b). In terms of gender, men were positively correlated with *rejecting*, *religion* and *moral evil* attitudes which, generally speaking, indicates a more judgmental stance towards suicide. These disconfirmed predictions that they would have more accepting attitudes (H2a). This is also contrary to the higher suicide rates in men suggested in previous studies and local statistics. Future research could further examine attitudes towards suicide and male suicide rates. LGBTQA+ students, on the other hand, held more permissive attitudes of suicide than heterosexual students (H2c). Similar to Hindu students, LGBTQA+ students held the belief that suicide is a mental illness. Interestingly, *normality*, the belief that anyone at any one time had thought about suicide was associated with LGBTQA+ identity and “Other Ethnicity” identity.

Though *moral evil*, *religion*, *mental illness* and *permissiveness* were associated with suicidal behaviour in the correlational analyses of the overall sample, none were significant variables in the multiple regression analysis (Model 3). As such, most attitudes investigated were not associated with or predictive of suicidal behaviour which indicate they are less relevant in suicide assessment. *Normality* and *rejecting* were exceptions as the only significant predictors of suicidal behaviour in the final multiple regression model (Model 4). This indicates that *normality* is a risk factor for suicidal behaviour while *rejecting* attitudes are generally protective among Fijians. This suggests that the belief that suicide is ‘normal’ could also be a warning sign of

suicidal behaviour in younger people and that requires further assessment. Future research on cultural attitudes might consider qualitative methods such as interviews and/or developing specific scales based on the Fijian cultural context.

5.5 Protective Factors

It is also noteworthy that *self-compassion*, a protective factor in the study, was significant in predicting less suicidal behaviour and this was consistent with previous research (Zeller et al., 2014; Rabon et al., 2017). Tóth-Király and Neff (2020) found that *self-compassion* was highest amongst university students compared to community samples and further suggested that college meant a time for self-reflection, learning, and growth which results in a more self-compassionate state of mind (Neff et al., 2005). The finding that *self-compassion* is only a significant predictor in the overall and women's model, but not the model with only men, may indicate cultural influences at play. Culturally, women may be seen as nurturers, caring for the children and thinking of the family first before their own needs which explains why less *self-compassion* is a significant predictor of suicidal behaviour in the women model and not for men in this sample and could place women at risk. Therefore, *self-compassion* could be an important focus for suicide prevention, particularly for women.

Typically, *religiosity* has been a protective factor against suicidal behaviour in previous studies (Colucci & Martin, 2008; Dervic et al., 2004; Wu et al., 2015). Conversely, the findings from the Fijian university sample indicated more religiosity as a predictor for suicide in women, but not for men. One interpretation is that women in Fiji may experience more cultural expectations to uphold religious standards and be spiritual nurturers if their religious beliefs reflect *rejecting* attitudes, or if there is a belief that suicidal behaviour is a sinful act, and this could result in guilt for having suicidal thoughts. On the other hand, *religion* may be less salient for men. Considered together, the findings for religion and *self-compassion* also suggest that those who are able to be compassionate with themselves for falling short of societal standards may be more protected from suicidal behaviour. However, more self-judgement in addition to cultural expectations such as religion may put them at risk. Direction for future research could investigate how societal pressures and cultural values influence gender roles in relation to suicidal behaviour.

5.6 Personality

Although Western research (Bluml, 2013) has found the Big Five personality variables to be associated with suicidality, they were not predictors in the overall model in this study. Though *extraversion*, *agreeableness* and *conscientiousness* were significant correlations and were included for multiple regression analyses in Model 1 as protective factors, none of these variables were significant predictors. The exception was *neuroticism* for women in Model 3 even though it did not remain significant in the overall model (Model 4). The findings in the sample may suggest that these personality constructs developed and validated in non-Fijian samples may not be as relevant in identifying predictors of suicidal behaviour in Fiji. Therefore, future research could focus on measures tailored to the Fijian cultural context.

5.7 Limitations and Suggestions for Future Research

Given the student sample here, future research could focus on the wider community or diverse sample that better represents the populations of both urban and rural areas of Fiji and more ethnic groups. Moreover, the convenience sample did not have a large enough sample of LGBTQA+ community to provide valid analyses within this group. Therefore, further research should focus specifically on the unique elements of attitudes and cultural factors on suicide among LGBTQ+ people, women and men as a vulnerable community.

The lack of current suicide research from Fiji indicates that an in-depth approach could be utilised with a focus on cultural factors that could be associated with suicide behaviour. There are some limitations in the study that should be acknowledged. Firstly, the questionnaire involved self-report responses about suicide behaviour. A more extensive and qualitative approach could be used in a community sample.

Further, most measures utilised were based on Western research. Understanding of the questions on some of the measures were noted and modified based on the pilot studies. It is important that future research consider developing measures that are relevant to the Pacific cultures, specifically in the area of suicide. Development of such measures are critical in understanding suicide behaviour in the Pacific population or region. Moreover, an online approach was used which was more

appropriate for the younger and supposedly more tech savvy generation, but a community sample may require oral interviews informed by Pacific research methodologies. Despite these limitations, the study findings have still provided critical understanding and insights of suicide behaviour, assessment, and prevention in younger people.

5.8 Implications for Suicide Support and Prevention in Fiji

5.8.1 University Intervention

The findings offer some practical suggestions for supporting students and young people in Fiji and reducing suicide risks in this age group. The findings highlighted that the majority of students reported having suicidal behaviour, an implication that is useful to the university counselling centre to assume that the majority of students are already dealing with suicide experiences whether individually or through exposure; this is the rule and the norm rather than the exception. Educators and mental health professionals should not fear of *implanting the idea of suicide* in a student's mind in prevention efforts since they are already having to think about and deal with it in their current lives.

Education or awareness programmes could be implemented as a part of the orientation week programme given how common these experiences are. Essentially, this would be a way to increase access to psychological health on campus as well as identifying students at risk of suicidal behaviour such as routine screening of students for depressive symptoms at the university counselling centre and health centre. Further, peer support resources should be included, as the vast majority of students in this study indicated being ready and willing to help a peer in crisis. Peers may be a first point of contact and involving them could be helpful in creating a sense of belonging to reduce risk as Joiner's model suggests. Finally, awareness programmes might include special/separate groups for women, men, and LGBTQA+ could be useful as a means to address suicide given some of the demographic differences and cultural context.

5.8.2 *Community Programmes*

Community programmes, whether offered through the university or other means, should focus on areas such as coping with stress, depression, and self-compassion, particularly for women and supporting community well-being in general. Coping skills in particular could also include activities which engage family, friends or a social network that could provide support to improve quality of life. Since self-compassion helps with general well-being and acts as a protective factor, attempts to help Fijian youth, particularly women and young girls, develop habits that are indicative of self-compassion could improve positive self-talk and mindfulness. This could be beneficial in dealing with stressful situations and stressful family relations.

Further, education-based programmes could also be beneficial. Programmes for families in crisis on various ways to prevent self-harm could be useful, or programmes focusing on ways to identify someone at risk could also be of help.

5.8.3 *Government Response*

One of the key areas to effective suicide prevention is sustainable financial support towards mental health and suicide prevention as a national priority. In addition to allocated funding for the community and educational programmes outlined above, government resources could also assist in developing a national database for suicide which includes resources for evidence-based research, customised approaches to prevention and information on available resources on how to seek help in the community. There is also a critical need to improve access to mental health services. One important approach is behavioural health integration and this involves training programmes to upskill doctors and nurses to do routine screenings at health centres and major hospitals. Continuous support towards funding of the national lifeline will ensure availability of support for individuals in crisis and the general public.

One necessary (but by no means sufficient) policy to reduce completed suicides is to remove or significantly reduce access to the lethal methods. For Fiji, this would mean a complete ban on the use of lethal agricultural chemicals such as (but not restricted to) paraquat which was indicated in the recent statistics as a common method of suicide. It was announced by the Minister for Agriculture in late 2019 that insecticides such as paraquat and imidacloprid were to be banned starting from January

2020 (The Fijian Government, 2019). However, it is critical that this is done within a comprehensive and mental health focused campaign against suicide which focuses heavily on reducing the risk and predictive factors and supports coping, resilience and wellbeing within the wider population.

5.9 Conclusion

The current research study sought to better understand suicidal behaviour, risk factors, attitudes associated with suicide and peer response. The study was the first research to examine beyond prevalence and demographics associated with suicidal behaviour in Fijian youth. A key finding suggests that suicidal behaviour is more prevalent among university students than would be expected. Suicide is everyone's concern and therefore, the need for more government action and various stakeholders' involvement in order to assist with culturally appropriate interventions in reducing suicidal behaviour is critical. Understanding the cultural aspects of the various ethnicities in order to provide effective interventions is also key. The current study has provided critical and useful insights in understanding suicidal behaviour in younger people.

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