Perceived Stress, Geopathic Stress and Spirituality of Male Prison Inmates

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Abstract

Introduction: Previous studies provide insight into the association between incarceration and mental health of prison inmates, but fail to look into the influence Geopathic Stress (GS) and spirituality on perceived stress. This study aimed to determine the levels and relationships that exist among male inmates Perceived Stress, GS and Spirituality.

Method: The study design is a descriptive-correlational study that was conducted among 144 conveniently and purposively selected male inmates of a certain city Rehabilitation Center in the Philippines, during the third quarter of fiscal Year 2019. The data gathering for the study utilized the adopted Perceived Stress Scale\(^5\), the Religiosity/Spirituality Scale\(^5\) and the researcher GS instrument. Some of the items in the instruments were slightly modified with corresponding vernacular language translations in order to fit with prison inmates’ context. The percentage analysis, mean, standard deviation, Mann-Whitney U test, and Kruskall Wallis H test with probability level set at 0.05 alpha.

Results: Generally, the male inmates had fair level of perceived stress and moderate level of spirituality regardless of their age, educational attainment, length of incarceration and status of case. Those who stayed longer (over 3 years) in prison experience most stress than those who stayed shorter. GS induces one’s level of stress. A negative association between inmates perceived stress and spirituality and a positive association between GS and perceived stress. GS has always been ignored because most of the people are unaware of its occurrence in certain areas and its harmful effects on human health.

Conclusions: Although prison life is generally stressful, if inmates get involved in any religious-spiritual activities like bible study and worship service, vocational trainings, sports, exercises and other stress reduction activities may increase feelings of physical and mental well-being. Perceived long stay in prison induced the boredom of imprisonment and desire for liberty and longing to be with their family all adds to the stress of incarceration. On the other hand, if the inmates unluckily stayed over by sleeping for a long period of time within geopathically stressed area, they will be most likely to experience chronic stress that might develop various health problems. Spirituality is an internal resource that helps male inmates to cope well with stress. When one is connected with his spirituality, there is such a huge reservoir of support and help that one’s worries in life seem inconsequential. The results of this study may challenge health professionals in the correctional system to look into and consider GS and spirituality in managing inmates’ stress and mental health.

Introduction

A growing literature documents the rising (though recently stabilized) incarceration rates and detrimental consequences of incarceration for mental health\(^1\)-\(^3\). There are also evidences that underscore the negative influence of stress on health in connection with the notion that incarceration is a stressful and stigmatizing life event brought the challenge to look into the association
between incarceration and mental health. Likewise, the psychological impact of incarceration are well recognized by early researchers describing how the imprisonment and regimentation of imprisonment lead inmates to experience mental health disorders than they might have had if they had remained in the normal public life. Furthermore, theories had articulated that apart from the criminal feature, many inmates manifest mental disorders in prison as an effect of the stress of incarceration. This may be due to the fact that while in prison, inmates encounter new people, environment, and way of life, which are, in most cases hostile and extremely stressful.

Stress is a mental health problem associated with diverse physical and mental disorders including depression; a non-specific biological experience sprang from stressful situations. Experiencing a moderate level of stress is normal adaptation to daily pressures; however, extreme levels are indication of psychological distress with varied physical and emotional reactions depending on the stage. Currently, in United States, psychiatric illness is over-represented in correctional populations compared with the general population—more than half of all inmates have a mental health diagnosis. Correctional facilities are legally obligated to address the medical and mental health needs of the persons committed to them. As a result, more psychiatrists are practicing in jails and prisons.

A particular study among prison inmates of the State of Santa Catarina revealed that symptoms of depression were not associated with specific mental disorders, but rather with the unwholesome surroundings of prison environment, such as: overcrowding and limited space, bad odor smelling and airless cells; unhealthy food; inactive lifestyle; living with intimidating and violent individuals, including correctional officers, and lack of sunlight and human interaction. These also include inadequate penal and judicial systems and prison resources, with resultant delays in access to justice and speedy trial, the humiliation of being ‘jailed’, the concern regarding their family’s welfare, the horrible isolation, all add to the stresses of incarceration. Moreover, most of the prisoners are ill equipped to cope with the intense stress of prison life and if not treated creates depressive cognitions that can potentially develop into suicidal ideation. Thus, some of the mental health problems among inmates were most likely associated to unwholesome depressive prison environment that if not properly treated or addressed may lead to unexpected suicidal death.

On the other angle, geopathic zone (GZ) are placed on the surface of the earth affected by Geopathic Stress (GS) that can cause serious and long-term illnesses and psychological conditions for people who stay over them for a long period of time. GS is the disruption of Earth’s natural energy field causing harmful radiations to emanate from earth surface. This disruption may be caused because of underground water streams, underground fissures, concentration of some minerals or magnetic gridlines. Some of the health problems caused by GS are resistance to treatment, feeling run down and exhausted, depression, nervousness, variations in blood pressure and heart rate, insomnia, restless sleep, chronic stress, feeling cold, headaches, nervousness, asthma and behavioural problems in children. These energies from the subsurface of the earth at a specific location have the ability to change the normal functioning of human system and had always been ignored because most of the people are unaware of its occurrence and its harmful effects on human health.

As affirmed, stress is known to adversely affect health as soon as it is present for longer periods and also true to GS. According to Hacker et al., certain location on the surface of the earth can indeed induce stress. Such zones might cause distress ("malignant stress") even when staying at a short period of time. However, if present for an extended period of time, eustress may in a little time change to distress and thereby weaken the immune system. Because of the active suppression of the immune and other bodily systems, it appears most likely that in some persons, the development of more complex diseases is increased when individuals kept on staying for longer times at GS zones (e.g., if stayed at their sleeping area, or at the area where their working chair is frequently placed). Likewise, staying within geopathically stressed areas for a period of time may have a negative impacts on therapeutic processes (e.g. in hospitals or recovery homes), on good sleeping, on personal relationships, especially in communication with partners (e.g. aggression), work performance and overall health. Those people who are at the early stages of ill health may become more sensitive to various kinds of disease when staying longer within GS zone, as well as observe that recovery may takes longer than normal. In the later stage, it could be thought that chronic stress caused by GS may finally even lead to the development of malignant disease. Moreover, it was explained that the disturbed zones (known as GS zone in the present study) could no matter if in animals, plants or humans, weaken the immune system by causing stress. Thus, GS induces distress and suppress immune system, lead to chronic stress and development of various diseases. A challenge is made to all health-care professionals who are dedicated to the development of
holistic care to further their understanding and awareness of this phenomenon.

Finally, research demonstrates largely positive associations between religiosity and well-being 36-38. Previous research 39 has found that 90 percent of African Americans indicate religion is important in their daily lives; prior studies have also shown that using religion and spirituality to cope with and adapt to stressful circumstances can mitigate stress. Likewise, research also revealed religious belief and practice is connected with greater resiliency for those who strongly believe and have a close relationship with God. For example, a national study of veteran's health emphasized the significant protective impact of spirituality 40. The higher the level of spiritual belief the lesser the chance for hostile mental health problems including post-traumatic stress disorder, alcoholism, major depressive disorder, and suicidal ideation. It shows that veterans who have a highly spiritual belief had a strong sense of gratitude and purpose in life. Spirituality as a coping strategy can have a positive effect on helping individuals handle 41 with stressful prison life. Therefore, by examining the association between inmates' spirituality and perceived stress, we may be able to gain a better understanding of the impact of spiritual activities on inmates' levels of stress and eventually can maximize the rehabilitative benefits of incarceration.

This study is anchored on the positions on the importance of religious and spiritual beliefs on the improvements in the health 77,38. Research 42 specifically revealed the positive association of spiritual coping with lower stress and high resiliency. Those who adopt religious coping methods such as seeking spiritual support developed the ability to cope with the stress of challenging prison life. Likewise, research has shown that the majority of people those are suffered ill health while sleeping in the GS zones 30,43,44. Furthermore, it has been reported that certain location on the surface of the earth can indeed induce stress. Such zones might cause distress ("malignant stress") and weaken the immune system even when staying at a short period of time 25 and negatively affect physical and mental health. It is thought that some of the male inmates might be affected by GS 39; however, its impact on health issues has been ignored due to lack of awareness of its presence in certain locations 26. It stands to reason therefore that GS and spirituality might significantly influence the inmates' levels of perceived stress.

Specifically, this study zeroes in on the mental health development strategies for prison inmates by espousing the idea that their spirituality, GS, and certain demographic factors could be a critical factor for the stress reduction. The researchers based their assumption from Selye's proposal stipulated that stress was present in an individual throughout the entire period of exposure to a nonspecific demand 45. Selye distinguished acute stress from the total response to chronically applied stressors, terming the latter condition 'general adaptation syndrome', which is also known in the literature as Selye's Syndrome 46. The syndrome divides the total response from stress into three phases: the alarm reaction, the stage of resistance and the stage of exhaustion. When individuals are exposed to a stressor, they are at first taken off guard, then attempt to maintain homeostasis by resisting the change, and eventually fall victim to exhaustion in countering the stressor. As affirmed 47, stressors are assumed to be conditions or circumstances that are considered threatening or demanding, or go beyond a person's capacity to handle. When an individual is open to a stressor, he/she will exhibit a stress reaction; for this study perceived longer stay in prison served as stressor. Long period stress includes the sympathetic nervous system, the innate immune system and the hypothalamic-pituitary-adrenal axis (also known as the HPA). Since it's not possible to eliminate every stressor in prison, it's important to find ways to cope with stress. Knowing the signs and stages of stress can help inmates take appropriate steps to manage their stress level and lower their risk of complications. Conversely, it's essential for one's body to repair and recover during the resistance stage. If not, their risk for exhaustion rises. If they can't eliminate a stressful event, they may opt to engage in religious or spiritual activities to cope and maintain a healthy stress level or to stay away from exposure within GS zone that directly triggered stress in order to avoid from its harmful effect on their health. Conversely, if untreated, stress however downplayed at times, could be hazardous 48.

The impetus for this research stemmed, in part, from the relative dearth of scholarly research on the impact of GS and spirituality on male inmates levels of perceived stress. Indeed, an extensive literature search on perceived stress, GS and spirituality were done in other fields but scanty on the relationships of the variables among male inmates incarceration stress. The present study was designed, in part, to explore the level of perceived stress, extent of GS and level of spirituality in a certain city rehabilitation center in the Philippines as one way of contributing to the literature on coping and managing the stress of incarceration.

From the foregoing theoretical constructs, the researchers deemed it necessary to delineate the possible impact male inmates' level of spirituality, GS and certain demographic factors on their level of perceived stress. Does inmates level of perceived stress is influenced by their level of spirituality, GS, and demographic variables such as age, educational attainment, length of incarceration and status of case? This question must be answered. Hence, the study was conducted.
Methodology

Method

The study employed the descriptive-correlational method of research. According to Traverse, the descriptive method is designed to gather information and to describe the nature of a situation as it existed at the time of the study was conducted and to help detect significant relationships between the current phenomena. The presentation and discussion of the findings were made utilizing the descriptive-analytical method.

Locale and Population

The study was conducted in one of the city rehabilitation centers in the Philippines. The city correctional had separate prisons for women and male prisoners. In City Jail, the prison building is called dormitory that is managed by a female or male warden. However, the other institution is managed by a male warden. The city jail is serving a nearby trial court; this prison houses mainly undertrial prisoners and those serving shorter sentences. Depending on the gravity of the case and sentence of female prisoners, usually for long term imprisonment both institution transfers their prisoners to the national correctional institution, which is a state prison, located in Manila, the capital of the Philippines.

The institutions adhere to the recommendation of the UN released resolution on the reformation of prison services through education. Practiced therewith, is the Therapeutic Community Modality Program (TCMP), a set-up policy from the National Bureau of Jail Management and Penology (BJMP). TCMP is a national project for all prisons and penal farms in the Philippines. This is a program targeting behaviour management, intellectual and spiritual, emotional and psychological, and survival/vocational trainings for imprisoned individuals. This structured program is facilitated by trained jail staffs and offered to willing participants.

As stated in the Bureau of Correction, the Therapeutic Community (TC) Program signifies an active, highly organized environment with defined limitations in moral and ethical aspects. The main purpose is to nurture personal growth among inmates. This is done by reforming an individual's behavior and attitudes through the inmates' community working together to assist themselves and each other, bringing back self-confidence, and preparing them for their returning into their families and friends as wholesome and productive members of the community.

Ethical Considerations

The researcher obtained an Ethics Clearance from the Ethics Review Committee and also got signed informed consent from the respondents. All participants were over 18 years of age and were properly informed about the purpose and nature of the study. Further, they were advised that their participation was voluntary, of which their consent was asked prior to their acceptance as respondents. They were also guaranteed the privacy and confidentiality of the data gathered. Anonymity was observed in the use of pseudonyms of the participants and location of the research.

Instruments

The data gathering for the study utilized the adopted Perceived Stress Scale (PSS), the Religiosity/Spirituality Scale and the GS instrument. The questionnaires used for this study contained two parts. Part 1 included the personal data of the participants. This contained information regarding participants' sex, age, educational attainment, length of incarceration, status of case and religious affiliation. Part II of the questionnaire solicited information regarding their perceived stress, GS and spirituality. Information on their most stressful experience and stress coping mechanism was also included. The vernacular version of the questionnaire was also provided.

Perceived Stress Scale: This study utilized the adopted Perceived Stress Scale to assess the inmate level of incarceration stress. The PSS showed adequate reliability and, as predicted, was correlated with life-event scores, depressive and physical symptomology, utilization of health services, and social anxiety. The scale consists of 10 items and requires the respondents to choose the option that best fits how he/she feels and how things have been going with them during the last month. Each item is answered on a 5-point Likert scoring system, ranging from almost never (1) to almost always (5). Item 4, 5, 7 and 8 are positively stated and scores are obtained by reversing. The test was scored by adding the encircled numbers and interpreted by means of the following scale: 4.10 – 5.00, Extremely stressed; 3.10 – 4.00, Stressed; 2.10 – 3.00, Fairly stressed; 2.00 and below, Not stressed.

Spirituality Scale: To gather the data for the level of spirituality of male inmates, the researcher used the 25 items slightly modified adopted Religiosity /Spirituality Scale. The number of items were selected/reduced in the instrument with corresponding vernacular language translations in order to fit with prison inmates’ context. The measure demonstrated strong internal consistency, and test-retest reliability data, as well as good preliminary validity. The scale consists of 25 items and requires the respondents to rate how often they do each activity or much they believe each item to be true. Each item is answered on a 5-point Likert scoring system, ranging from almost never to almost always (5). The measure was scored by adding the encircled numbers and interpreted by means of the following scale: 4.10 – 5.00, Very spiritual; 3.10 – 4.00,
Moderately spiritual; 2.10 – 3.00, Slightly spiritual; 2.00 and below, Not at all.

**Geopathic Stress Scale:** To gather the data for GS the researcher utilized the 15 items adopted GS instrument and required the respondents to encircle the numerical weight corresponding to the selected responses based on the frequency of occurrence from Almost Never/Strongly Disagree (1) to Almost Always/Strongly Agree (5). The test is scored by adding all the scores together and interpreted by means of the following scale: 4.10 – 5.00, Extremely Experiencing GS; 3.10 – 4.00, Have substantial GS feeling/Experiencing GS, 2.10 – 3.00, Have some strong feelings of GS; 2.00 and below, Have few feelings of GS.

**Procedure**

The permit to conduct the study among inmates during SY 2019–2020 was sought from the office the Campus Administrator, University President, authorities of Rehabilitation Center and BJMP respectively. The purposive and convenient sampling method was employed in the selection of the respondents who comprised the sample for this study. Only those inmates who are literate in answering questionnaire (at least elementary graduate), willing and available during the conduct of the study are qualified to be respondents. These participants were given the final forms of the questionnaire and likewise assisted by the researchers in the filling up of questionnaires. The researchers personally distributed the questionnaires to the concerned inmates, assist and explain if needed and retrieved the same. Upon retrieval of the questionnaires, accomplished copies were tallied, classified, statistically treated, and interpreted.

**Statistical Tools**

The data gathered for the study were subjected to certain computer analysis using the Statistical Package for the Social Sciences (SPSS) software. The percentage analysis, mean, standard deviation, Mann-Whitney U test, and Kruskall Wallis H test with probability level set at 0.05 alpha.

**Results**

**Profile of the Respondents**

The respondents of the research study covered 144 purposively and conveniently selected male inmates of certain city Rehabilitation Centre in the Philippines, during the third quarter of fiscal Year 2019. The respondents were classified according to their age, educational attainment, length of incarceration, and status of case. Of the 144 male inmates, 77 (53.47%) were young (30 years old and below) and 67 (46.53%) were old (over 30 years of age); 48 (33.33%) were elementary, 68 (42.22%) were high school, and 28 (19.45%) were college; 105 (79.92%) were short (3 years and below) and 39 (27.08%) were long (over 3 years); and 94 (65.28%) were with pending and 50 (34.72%) were with convicted. Figure 1 shows the graphical presentation.

**Religious Affiliation**

Generally, the male inmates were all (100%) Christians. When classified as to religious affiliation, 123 or 85.42% were Roman Catholic, 9 or 6.25% were Baptist or Protestant, 6 or 4.17% were Iglisia ni Kristo, 5 or 3.47 were Born Again, and 1 or .69% was Jehovah Witness. In other words, the respondents were Christians and majority were members of Roman Catholic Church religious organization. Figure 2 shows the graphical presentation.

**Level of Perceived Stress**

As an entire group (Mean (M)=2.80, SD=0.42), and when classified as to age (Young, M=2.80, SD=0.45; Old, M=2.81, SD=.35), educational attainment (Elementary, M=2.80, SD=0.39; High School, M=2.83, SD=0.37; College, M=2.77, SD=0.53), length of incarceration (Shorter, M=2.78, SD=0.52; Longer, M=2.91, SD=0.34) and status of case (Pending, M=2.83, SD=0.43; Convicted, M=2.75, SD=0.42)

**Figure 1. Graphical Presentation of Respondents' Selected Profile**
the male inmate had *fair* level of perceived stress. Figure 3 shows the graphical presentation.

**Level of Spirituality**

As an entire group (M=3.80, SD=0.73), and when classified as to age (Young, M=3.72, SD=0.68; Old, M=3.89, SD=.77), and educational attainment (Elementary, M=3.67, SD=0.73; High School, M=3.91, SD=0.63; College, M=3.74, SD=0.87), their length of incarceration (Shorter, M=3.82, SD=0.72; Longer, 3.72, SD=0.76), and status of case (Pending, M=3.75, SD=0.78; Convicted, M=3.89, SD=0.61) the male prison inmates had a *moderate* level of spirituality. Figure 4 shows the graphical presentation.

**Extent of Geopathic Stress**

Generally, nearly twenty (20%) of male inmates were affected by GS (experiencing and extremely experiencing
Differences in the Perceived Level of Stress Grouped as to Certain Categories

The Mann Whitney results showed that the male inmates did not differ significantly in their level of perceived stress when they were grouped according to their age (U=332, p=.740), educational attainment (U=660, p=.716) and status of case (U=1389, p=.165). However, a significant difference was noted in inmates perceived stress when they were grouped as to their length of incarceration (U=1989, p=.047). Those inmates with longer length of incarceration had higher level of perceived stress than those with shorter length of incarceration. On the other hand, a statistically significant difference (H=13.289, p=.001) existed in the inmates level of perceived stress when grouped as to their level of GS. Results of the Mann Whitney pair wise comparison, revealed that the inmates who have some strong feelings of GS had higher perceived level of stress compared with those with few feelings of GS (U=2316, p=.021) and those who are experiencing GS had higher perceived level of stress compared with those who had some strong feelings of GS (U=2188, p=.029).

Differences in the Level of Spirituality Grouped as to Certain Categories

The Mann Whitney results showed that the male inmates did not differ significantly in their level of spirituality when they were grouped according to their age (U=332, p=.740), length of incarceration (U=702, p=.483), and status of case (U=714, p=.475). In other words, the religiosity or spirituality among male inmates is not a factor of age, length of incarceration, and status of case. Likewise, results in the Kruskal Wallis H-test revealed that the inmates did not differ significantly in their level of spirituality when grouped according to their educational attainment (H=2.828, p=.243) and level of GS (H=1.830, p=.400). In other words, being spiritual is not all about ones’ educational attainment and level of GS.

Relationships of Male Inmates Perceived Stress, GS, and Spirituality

Results of the Spearman’s Rho revealed a negative and significant relationship between male inmates level of perceived stress and spirituality (r=-.175, p=.036) and a positive and significant relationship existed between inmates level of GS and perceived stress (r=.327, p=.000). The findings imply that inmates’ level of stress is influenced by their level of spirituality and level of GS. The higher the levels of inmates’ spirituality the lower the corresponding level of stress. However, a positive but no significant relationship was noted between inmates’ level of GS and spirituality (r=.051, p=.546). In other words, spirituality is not influenced by GS.

Discussion and Conclusion

This descriptive-correlational study examined the level and the relationships that exist among inmates perceived stress, GS and spirituality of male inmates in one of the city rehabilitations center in the Philippines.

The results of the study showed that majority of the male inmates were young, high school graduate, shorter length of incarceration, with pending status of case, and Roman Catholic religious beliefs. They were fairly stressed and had a moderate level of spirituality. This prevailing moderate level of stress and spirituality may indicate the positive impact of the Therapeutic Community stress reduction program of BJMP. The BJMP claimed that they actively practiced the Therapeutic Community Modality Program (TCMP), a set-up policy from the National Bureau of Jail Management and Penology (BJMP) in adherence to the recommendation of the UN released resolution on the reformation of prison services through education. The program focused on behavior management, intellectual and spiritual, emotional and psychological, and survival/vocational trainings for imprisoned individuals and facilitated by trained jail staffs and offered to willing participants.

Likewise, the inmates claimed that they actively participated in various stress reduction activities like...
bible study, worship service and other religious-spiritual activities sponsored by different religious organizations, vocational trainings, sports, exercises and other activities for them to cope with the stressful life in prison. There is some evidence that religiosity helps inmates cope with the prison experience\(^6\). Those who have strong faith tend to have a more positive outlook on life\(^7\) and feel hopeful about their abilities and their future are generally happy\(^8\). As affirmed, having a greater number of daily spiritual experiences and not feeling abandoned by God were associated with better emotional health\(^9\). Likewise, participating in sports can be a helpful way of reducing stress levels and increasing feelings of physical and mental well-being\(^10\). A regular exercise should be a part of everyone’s regular stress-management routine due to its numerous physical and mental rewards. Thus, the result suggests the positive impact of inmates’ participation in religious-spiritual, sports, exercises, and other stress reduction activities among inmates while in prison. In particular, spirituality played a big part among male inmates in coping with stressful prison life. For example, in cultivating their spirituality help them to uncover what’s most meaningful in their life so that they can focus less on the unimportant things and eliminate stress. Staying connected to their inner spirit and the lives of those around can enhance their quality of life, both mentally and physically.

The results revealed that inmates with longer length of incarceration had higher level of perceived stress than those with shorter length of incarceration. Research revealed that those inmates who are new to prison, but anticipate serving long sentences in prison, experience the most stress\(^11\). The results revealed that inmates with longer length of incarceration had higher level of perceived stress than those with shorter length of incarceration. Research revealed that those inmates who are new to prison, but anticipate serving long sentences in prison, experience the most stress\(^11\). As affirmed\(^12\), stressors are assumed to be conditions or circumstances that are considered threatening or demanding, or go beyond a person’s capacity to handle. When an individual is open to a stressor, he/she will exhibit a stress reaction; for this study perceived longer stay in prison served as stressor. Long period stress includes the sympathetic nervous system, the innate immune system and the hypothalamic-pituitary-adrenal axis (also known as the HPA). The strength of the reaction to stress is reliant upon how a person recognizes the stressor; if the stressor is seen as highly intimidating, then the response will be strong, and opposite. In the present study, the perceived long stay in prison induced the boredom of imprisonment and desire for liberty and longing to be with their family all adds to the stress of incarceration. Thus, the finding suggest of the negative impact of perceived long incarceration on male inmates level of stress. The diagnostic and statistical Manual Disorders (DSM-5) utilized by physicians and other healthcare professionals is recommended to provide the details and classification of mental disorders for the diagnosis and treatment\(^13\).

It is worth noting that nearly 20 percent of inmates were experiencing by GS. As reported, GZ are placed on the surface of the earth that can cause serious and long-term illnesses and psychological conditions for people who stay over them for a long period of time\(^14,30\). The earth is crisscrossed with invisible grid lines\(^44\) that rise vertically from the ground like invisible radioactive wall, to a distance of 220 km\(^65\) and such intersection are considered to create one of the most stressful zones\(^64\). These energies from earth at specific location (known as GS in the present study) have the ability to change the normal body function\(^64\) and wherever it crosses (where GS zone is located) are seen to be the source of potential problems\(^27\) and detrimental to the health of human body\(^46\). A negative spin/energy that causes a harmful effect in the body creates a high level of stress\(^67\) and disturbances in the immune system, behavioural pattern and cell structure of a person\(^14\). If a person stayed always by sleeping for 7-8 hours a night, and also working on a GS zone for long period of time can have unpleasant experience\(^67\). However, it has been always ignored because most of the people are unaware of its occurrence and its harmful effects\(^24,26\). Thus, the finding suggests that those inmates affected by GS were more likely staying over within a GS zone for a long period of time and were not aware of the existence and harmful effect of GS on their health. A survey if inmates were staying over within GS zone is suggested. Likewise, the findings revealed that the inmates who have some strong feelings of GS had higher perceived level of stress compared with those with few feelings of GS and those who are experiencing GS had higher perceived level of stress compared with those who had some strong feelings of GS. In other words, the levels of ones perceived stress positively corresponds to the level of their GS. The finding suggests the possible connection between ones level of GS and stress. It was affirmed\(^25\) that certain location on the surface of the earth can indeed induce stress. Such zones might cause distress (“malignant stress”) even when staying at a short period of time. However, if present for an extended period of time, eustress may in a little time change to distress and thereby weaken the immune system. Because of the active suppression of the immune and other bodily systems, it appears most likely that in some persons, the development of more complex diseases is increased when individual kept on staying for longer times at GS zones (e.g., if stayed at their sleeping area, or at the area where their working chair is frequently placed). Impacts on overall health, therapeutic processes (e.g. in hospitals or recovery homes), on good sleeping, and also on personal relationships, especially in communication with partners (e.g. aggression), and also performance at work are possible negative impact of location-dependent stress. Those people who are at the early stages of ill health may become more sensitive to various kinds of disease when staying longer within GS zone, as well as observe
that recovery may take longer than normal. In the later stage, it could be thought that chronic stress caused by GS may finally even lead to the development of malignant disease. Moreover, it was explained that the disturbed zones (known as GS zone in the present study) could make no matter if in animals, plants or humans, weaken the immune system by causing stress. Thus, the results suggest that GS induces stress and suppress immune system, lead to chronic stress and development of various diseases. A challenge is made to all health-care professionals who are dedicated to the development of holistic care to further their understanding and awareness of this phenomenon.

Finally, the finding demonstrates a negative association between inmates’ levels of spirituality and level of perceived stress. The highly spiritual the inmates, the less likely for them to experience stress. Previous study revealed a negative correlation between spiritual care and depression, anxiety, stress, aggression, and obsession. Those individuals who attend religious service regularly, perform religious behaviors such as prayer and scripture reading, and feel that religion is a very important part of their lives suffer less from depression and anxiety and score higher on measures of general mental well-being than their nonreligious counterparts. Likewise, it was affirmed that spiritual well-being is considered as an internal resource that helps an individual to cope well with stress. Furthermore, research revealed that prisoners who practice transcendental meditation twice a day might experience less stress and fewer mental health issues than fellow inmates who don’t meditate, a small U.S. Thus, the finding suggests the important role of spirituality as an internal resource that helps male inmates to cope well with stress. People who consider themselves spiritual may be better able to cope with stress and may experience health benefits. A spiritual approach to prison life can shorten the time in which one experience seeming moments of pressure or tension. When one is connected with his spirituality, there is such a huge reservoir of support and help that one’s worries in life seem inconsequential. When inmates get in touch with their spirituality, the ways to deal with stress will naturally fade away. Thus, strengthening of spiritual activities and prison inmates is hereby recommended.

Finally, an assessment of stress and other behavioral and mental illness using non-invasive like questionnaires is hereby recommended. This type of assessment may help the policymakers to assess the problems of the society timely and make necessary recommendations.

**Study Limitations**

It is important to consider certain limitations of the present study. The survey was founded on Likert type questionnaire, which could lead to intentional or unintentional dishonesty from participants, sometimes respondents may misunderstand the questions asked and give wrong feedbacks leading to skewed results, because in some cases someone might not be available to explain. Survey question answer options could lead to unclear data because certain answer options may be interpreted differently by respondents considering that some of the inmates-respondents are less literate in answering research questionnaire. Furthermore, the social desirability bias and pressure from being observed during the filling out during the survey might lead to disruption and partiality. The later limitation the study establishes the initial relationship among GS, spirituality and perceived stress. Usually, relationship does not suggest causation; being less stressed does not necessarily mean that a person is highly spiritual, and more geopathically stressed does not make a person is more stressed based to the results presented in this research. Despite these limitations, the results of this study expand the knowledge we currently have about the influence of spirituality and GS among male inmates perceived stress, in general, and its impact on their mental and physical health conditions.

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Appendix A

Data Gathering Instrument

West Visayas State University
Lambunao Campus
Office of Research
Lambunao, Iloilo

1. Background Information

1. **What is your** (Ano ang imo)
   - (a) **Sex** (Kinatawo): _____
   - (b) **Age** (Edad): ______
   - (c) **Highest Educational Attainment** (Pinakamatas nga naeskwelahan): _______
   - (d) **Religious Affiliation** (Relihiyon):_____________________

2. **How long have you been incarcerated** (Ano kalawig ang imo pagkabilanggo)?_______
   - If so, how many times (Kon nabilanggo ka, pila ka beses)? ____
   - If so, how much total times (Ano kalawig sa bilanguan)? ______

3. **What is your case** (Ano ang imo Ka so)?

4. **Status of Case** (Estado sang kaso)?
   - Pending (Wala pa Ma-desisyonan)
   - Convicted (Na desisyonan na)

2. Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

| Questions Mga Pamangkot | Almost Never (Halos Wala) | Infrequent (1) | Some Times (2) | Frequent (3) | Almost Always (4) |
|-------------------------|---------------------------|----------------|----------------|--------------|-------------------|
| In the last month, how often have you been upset because of something that happened unexpectedly? | 4 | 5 | 1 | 2 | 3 |
| In the last month, how often have you felt that you were unable to control the important things in your life? | 1 | 2 | 3 | 4 | 5 |
| In the last month, how often have you felt nervous and “stressed”? | 1 | 2 | 3 | 4 | 5 |
| In the last month, how often have you felt confident about your ability to handle your personal problem? | 1 | 2 | 3 | 4 | 5 |
| In the last month, how often have you felt that things were going your way? | 1 | 2 | 3 | 4 | 5 |
| In the last month, how often have you found that you could not cope with all the things that you had to do? | 1 | 2 | 3 | 4 | 5 |
In the last month, how often you have been able to control irritations in your life?
Sa mga nagligad nga bulan, daw pila ka beses nga nabatyagan nga masarangan kontrolon ang pagka-iritar ukon kaakig sa imo kabuhi?

| 1 | 2 | 3 | 4 | 5 |

In the last month, how often you felt that you were on top of things?
Sa mga nagligad nga bulan, daw pila ka beses nakabatyag sang pagkahamtang sang imo kaisipan sa mga butang nga nagkahalataba?

| 1 | 2 | 3 | 4 | 5 |

In the last month, how often you been angered because of things that were outside of your control?
Sa mga nagligad nga bulan, daw pila ka beses nagapangakig sa mga butang nga indi mo makontrol ukon mapunggan?

| 1 | 2 | 3 | 4 | 5 |

In the last month, how often you felt difficulties were piling up so high that you could not overcome them?
Sa mga nagligad nga bulan, daw pila ka beses mo nabatyagan nga ang nagaabot nga mga kabudlayan daw indi mo masarangan?

| 1 | 2 | 3 | 4 | 5 |

Interview Questions (See separate copy – Example of Answers)

I. What was the most stressful thing for you to deal with while in prison/incarceration? Please check the only number that best describe your most stressful experience and further explain the situation.

Ano gid ang pinaka “stressful” ukon mabudlay nga imo maagyan sa bilanguan? Palihog e-chekan lang ang numero nga nagasanto sa imo nga na-experyensahan kag e-saysay ang sitwasyon.

___(1) Separation from love ones (Pagpahilay sa imo mga pinalangga sa kabuhi).

Explain (E-saysay):
___________________________________________________________
_________________________________________________________________________

___(2) General prison environment (Kabug-osan nga sitwasyon sang bilanguan).

Explain (E-saysay):
___________________________________________________________
_________________________________________________________________________

___(3) Ambiguity of situation (Indi mabal-an nga masunod nga kahimtangan).

Explain (E-saysay):
___________________________________________________________
_________________________________________________________________________

___(4) Negative prison environment (indi maayo nga pagtratar).

Explain (E-saysay):
___________________________________________________________
_________________________________________________________________________

___(5) Other Inmates (Ang upod sa prisohan).

Explain (E-saysay):
___________________________________________________________
_________________________________________________________________________

___(6) Others (Iban pa):

_________________________________________________________
II. **What did you do to cope with your stressful experience?** *(Ano ang imo ginhimo agud nga mapakalma ukon madula ang stress nga imo ginabatyag)*? Please explain *(Palihog e-saysay).*

3. **Religious and Spirituality Scale**

Directions: Many of us have different beliefs and activities related to God. Please read each item carefully and rate how often you do each activity or how much you believe each item to be true. Use the following answer choices.

**Diriksyon:** Madamo sa aton ang may nagakalainlain nga pagpati kag ginahimo nahanungod sa pagtoo sa Dios. Palihog basahon ang tagsatagsa ka dimalan nga may paghangagop kag tagaan sang rating kon daw ano mo pirmi ini ginahimo kag kon daw ano mo ini ginapatihan ang pagkamatood sang tagsa ka dimalan. Pilion ang mga masunod nga mga sabat:

1 = I almost never DO or believe this *(Halos wala ko ginahimo kag ginapatihan ini)*
2 = I infrequently DO or believe this *(Talagsa ko ginahimo kag ginapatihan ini)*
3 = I DO or believe this some of the time *(Ginahimo kag ginapatihan ko ini kon kaisa)*
4 = I frequently DO or believe this *(Ginahimo kag ginapatihan ko ini pirmi)*
5 = I almost always DO or believe this *(Pirmi ko gid ginahimo kag ginapatihan ini)*

| Item Dimalan | Almost Never | Infre-quent | Some-times | Fre-quent | Almost Always |
|--------------|--------------|-------------|------------|-----------|---------------|
| **1** My religious belief makes me happy. |
| Ang akon pagtolouhan nagapahalipay sa akon. |
| 1 | 2 | 2 | 4 | 5 |
| **2** I study or read scriptures. |
| Ako nagabasa kag nagatoo sang pulong sang Dios. |
| 1 | 2 | 3 | 4 | 5 |
| **3** When I’m worried or nervous, my faith helps me calm down. |
| Kon ako indi mapahamtang kag gikulbaan, ang akon pagtoo nagapa kalma sang akon balatyagon. |
| 1 | 2 | 3 | 4 | 5 |
| **4** Praying gives me strength when I’m upset. |
| Ang pangamoyo nagapabakod kon indi ako mapahamtang. |
| 1 | 2 | 3 | 4 | 5 |
| **5** When I face a problem, I pray for God’s help. |
| Kon nagastubang ako sang problema, nagapangamoyo ako nga buligan sang Dios. |
| 1 | 2 | 3 | 4 | 5 |
| **6** When I do something wrong, I asked God’s forgiveness. |
| Kon may nahimo ako nga sala, nagapangayo ako sa Dios sang kapatawan. |
| 1 | 2 | 3 | 4 | 5 |
| **7** I listen to religious song or poetry about God. |
| Ako nagapamati sang mga ispiriuhanon nga ambahanon kag mga binaybay nahanungod sa Dios. |
| 1 | 2 | 3 | 4 | 5 |
| **8** My faith gives me hope in tough times. |
| Ang akon pagtoo nagahatag sa akon sing paglaum sa mga mabudlay nga sitwasyon. |
| 1 | 2 | 3 | 4 | 5 |
| **9** I find teachings about God interesting or helpful. |
| Akon nakita nga ang pagtudlo nahanungod sa Dios maayo kag makabulig. |
| 1 | 2 | 3 | 4 | 5 |
| **10** My belief in God gives my life meaning. |
| Ang akon pagtoo sa Dios naghatag duag sa akon kabuhi. |
| 1 | 2 | 3 | 4 | 5 |
I believe God will not give me more than I can handle.
Ako nagapati nga ang Dios indi gid maghatag sang subra nga indi ko masarangan.

When something bad happens, I know that God is trying to make me stronger.
Kon may malain nga hitabu, nabalan-an ko nga gusto sang Dios nga ako mangin mabakod.

When I’m struggling, I ask God to help me understand the situation.
Kon ginabudlayan ako, nagapangayo ako sa Dios nga buligan ako nga mahangang ang sitwayson.

I give others spiritual or religious advice.
Nagahatag ako sa iban sang mga relihoso kag ispirituhanon nga mga laygay.

I say scripture/word of God to myself when I’m upset or scared.
Ginamitlang ko ang pulong sang Dios sa akon kaugalingon kon ako indi mapahamtang ukon ginhadlukan.

My faith gives me feeling of peacefulness.
Ang akon pagtoo nagahatag sa akon sang kalinungan.

When bad things happen, I try to figure out what lesson God is trying to teach me.
Kon magaabot ang malain nga mga butang, ginahangup ako nga ini ginpadala sang Dios nga pagtulon-an sa akon kabuhi.

I confess my sins to God.
Ako nagakompisar sang akon mga sala sa Dios.

I talk with others about my religious belief.
Ginasugid ko sa iban ang akon pagtulouhan.

I have a close relationship with God.
Malapit ang akon relasyon sa Dios.

I watch religious TV shows or movies.
Ako nagatan-aw sang mga relihoso ukon ispirituhanon nga mga programa ukon pilikula sa tilibisyon.

My beliefs about God help me decide what to do in hard situations.
Ang akon pagtoo sa Dios nagabulig sa akon sa paghimo sang disisyon sa mga mabudlay nga sitwayson.

I offer money based on my religious belief.
Nagahatag ako sang kwarta suno sa akon pagtulouhan.

I ask other to pray for me.
Nagapangabay ako sa iban sa pagpangamuyo para sa akon.

God comforts me.
Ang Dios nagapahagan-hagan sa akon bolatyaon.

### 4. How Much Geophatic Stress are You Experiencing?

**Direction:** This measure is designed to determine how you currently feel about your health and its related aspects. (There is no right or wrong answers. Work quickly and circle your first impression). Please encircle the number that corresponds to your responses.

**Pagpanggiya:** Ang ini nga talaksan ginhimo agud mabal-an ang imo nabatyagan sa ikaayong lawas ka ang iban pa nga may mga relasyon. (Wala sing insakto kag sola nga mga sabat). Himoon sing modali kag timbolugan ang numero nga nagasanto sa imo hunahuna ukon sa imo pamatyagan.

| Items | Almost Never | Halos | Wala | Natabo | Infre-quent | Talagsa | Natabo | Sometimes | Kon Kaisa | Agi Lang | Frequent | Pirmi Naga-katabo | Almost Always | Halos | Pirmi Ged |
|-------|--------------|-------|------|--------|-------------|---------|------|----------|----------|---------|----------|----------------|---------------|-------|--------|
| It is difficult for me to fall asleep for hours. | 1 | 2 | 3 | 4 | 5 |
| Mabudlay sa akon ang pagtulog sing malawig ukon mahamook. | 1 | 2 | 3 | 4 | 5 |
| I’m suffering from disturbed sleep or insomnia. | 1 | 2 | 3 | 4 | 5 |
| Ako nagaanto sang kabudlay sang katologon ukon insomnya. | 1 | 2 | 3 | 4 | 5 |
I’m having nightmares or strange dream.

_Nagadamgo ako sing indi maayo ukon kaharadlokan._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I wake up in the morning feeling sleepy and tired.

_Nagabugtaw ako sa aya nga daw wala sing tinulogan kag kaposyang kalawasan._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m feeling tired and exhausted for the whole day.

_Makapoy kag maluya ang akon kalawasan sa bilog nga adlaw._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m suffering from dizziness and chronic fatigue.

_Nagabatyag sang katuya kag kaluya sang lawas._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m having difficulties to concentrate.

_Nabudayan ako maqpanumdum ukon mag-concentrate._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m often suffering from migraine or persistent headache.

_Pirmi lang ako nagabatyag sang migraine kag nagasakit ang ulo._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m always feeling stressed and irritable.

_Pirmi lang ako gina-stress kag irritable._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|-------------------|----------|---------|-------|---------------|
| Wala gid Na-ga-kompormi | Wala nga-kompormi | Sa Tun-ga-tunga | Naga-Kompormi | Tama gid Ka-kompormi |

I’m having a symptom of illness that does not respond to medical treatment or therapy.

_May mga sintoma ako sang balatian sa lawas nga wala nagagawa. Bisan tumaran ko sang bolong ukon bulgon._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m feeling much better sleeping in other places than in my present bed or sleeping location.

_Mas manami ang akon tulog kon magtolog ako sa iban nga tulog sang sa lugar nga akon tulad nga ginahidao._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m having cold and flu most of the time.

_Pirmi lang ako nagabatyag sang pagpanglamig kag ginahilantan._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I’m having rapid heartbeat while lying still in bed.

_Madasig ang pagpitik ukon pagkibu sang akon tagipusoon sa akon tulad nga ginahidao._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I feel uneasy at place where I’m staying, though I am fine in other places or premises.

_Indi pirmi maayo ang akon pamatayagan sa lugar nga akon tulad ginatiniran pero mayad man ko sa iban._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

I never actually feel entirely healthy.

_Sa kabug-usan, indi gid maayo ang akon pamatayagan._

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

**Thank You Very Much.**

_Salamat Gid nga Madamo._