

Integrated Nocturnal Mental Health Service Model: Addressing Barriers to Mental Health Care at Night in Malaysia

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Abstract: Introduction: Mental health is a critical aspect of overall well-being, playing a significant role in coping with stress, realizing one's potential, and contributing to society. However, mental health issues have experienced a global rise, with Malaysia reporting a substantial increase in lifetime prevalence. These troubling statistics emphasize the urgent need for effective mental health services, particularly during night-time hours, a period when services are limited. The present study aims to devise an Integrated Nocturnal Mental Health Service Model (INMHSM) that specifically targets the barriers to receiving mental health care during night-time hours.

Methodology: A qualitative research approach was employed, involving in-depth interviews with mental health experts, survivors, patients, and caregivers. The proposed model integrates an alternative support system that utilizes community resources, such as ex-service members, retired nurses, and trained drivers. The system designed to work in conjunction with existing hotlines and face-to-face services, providing prompt and accessible care during the most vulnerable hours.

Results: The findings revealed significant voids in the provision of night-time mental health services, including extended waiting periods, limited availability of professionals, and a lack of integrated support systems. The proposed model aims to bridge these gaps by establishing a community-based support network that operates during night-time hours, ensuring timely and effective intervention.

Conclusion: The study emphasizes the importance of accessible, targeted interventions and stresses the need for further studies to refine and implement this model effectively. Addressing nocturnal mental health care challenges is crucial for a comprehensive mental health strategy in Malaysia.

Keywords: Mental Health, Suicide Prevention, Nocturnal Health Services, Depression, Posttraumatic stress disorder, Integrated Care, Malaysia

INTRODUCTION

Mental health, refers to a state of emotional, mental, and behavioural well-being that enables an individual to maintain an equilibrium emotional state or to be free from mental strain in thoughts, feelings, behaviors, and physical capabilities. Mid night or Night time is the peak time for many (Study Pinpoints When People Are Most Likely to Commit Suicide - CBS News, n.d.). Mental health issues such as suicides, abuse. According to recent analysis of suicides for 15 years and abuse (Tubbs et al., 2024) nearly 19% of suicides and 36% of homicides occur at night. Not only suicides, homicides, the situations are leading to long waiting periods thereby leading to delay in treatment (DIT) which again increase the deterioration of (Altuwairqi, 2023) mental health issues and

increasing the burden on psychiatrists and psychologists. Laranjeira, C., & Querido, A. (2024) same issues increased from 28.1 in 1990 to 49.7 (Hamzah & Othman, 2024) million deaths in 2020, resulting in 77% increase in death rate. In Chen publication, National Health Morbidity Survey (NHMS) states that among 4.6% of Malaysian youth, 18.5% teenage girls reported suicidal ideation, females affected double fold, with 7.5% physical abuse, cyber (Chen et al., 2005) bullying where the issues mostly prone to happen mostly at night time.

In the context of time factor compared to Day time, the Night time particularly between 8pm-6 am enables more vulnerable situations due to limited availability, accessibility of mental health services. According to study by Yalcin et al., (2022), more than availability, accessibility to treatment is more effective way to reduce to (Asher et al., 2017) incidence of restrain and suicidal ideation and increase in suicide rate. Mental Health provision deficit and utilization problems (Devkota et al., 2021) also adding to these issues at night time. The unique pattern at night time, is Nocturnal Maladaptive Behaviour Cycle (NMBC) is due to modern life style changes and perceived social status (Lamoureux-Lamarche et al., 2022) problems in relation to Hypothesis of Mind after midnight, like suicide and self-harm, violent behaviour, alcohol or substance abuse peak at 10pm and Alcohol peak at 8 pm and 2 am, as a whole called as night time specific Disorders (NSD)

It is important to note that the management of NSD is further complicated by psychosocial challenges at night time which comprise accessibility, availability, lack of awareness (Kirkbride et al., 2024), mental health provision deficit, utilization problems and negative help-seeking behavior due to fear of being labelled (Patterson et al., 2020). The unique challenge in this aspect is smiling depression, (Albikawi, 2023; Moitra et al., 2023) mental health masking which is a threat for suicidal ideation in youth. There are many strategies that government is undertaking to address these issues like Primary, Indicated and Individual in this context. Instead of their availability, there is still prevalence of mental health enabling the alarming need to increase the (Hickie et al., 2019) effectiveness, accessibility and availability of these services.

METHODOLOGY

Literature Review

According to the study by Tonon et al., the circadian rhythm, which is an internal 24-hour biological clock, plays a crucial role in mental health. The process begins with the detection of darkness by the eyes, which sends signals to the pacemaker suprachiasmatic nucleus in the hypothalamus. This master clock has been associated with depression and anxiety-like behaviors (Vadnie et al., 2022). The suprachiasmatic nucleus then influences the pineal gland to produce melatonin, which helps synchronize the body's physiological activities with the external light-dark cycle (Yalçin et al., 2022; Vadnie et al., 2022; Rawashdeh, O., & Maronde, E. 2012).

Stańdo et al. (2022) found peak search interest for terms related to suicide and depression from 22:00 to 1:00. Research indicates nocturnal wakefulness increases suicide risk among U.S. Veterans (McCarthy et al., 2019), with similar suicide patterns observed between U.S. Veterans and civilians. A significant proportion of the Violence Group were male, with half under the influence of alcohol (Hörauf et al., 2023). More VG patients arrived via ambulance or trauma room during weekends and nights, highlighting the mental health burden on emergency departments. People with schizophrenia, victims of violence, (Dresp-Langley, B., & Hutt, A. 2022) with personality disorders, and children may find (Tanner J. Bommersbach, 2023) hotlines ineffective, necessitating face-to-face (Meyer et al., 2024) night-time interventions from many experts also.

In this context, the mental health Services constitute a crucial face of social support. In Malaysia, there exist a total of 294 Mental Health facilities in total under private, government and NGO. Among them, a subset is providing 24/7 mental health services in Malaysia through Hotlines.

Primary Prevention: Public awareness campaigns like OHBULAN by Media Prima (Marzuki et al., 2023) in partnership with MIASA, and 'Sembangkalau-Bimbang' by Air Selangor, as well as community mental health programs and Child and Adolescent Mental Health (CAMH) initiatives, focus on the general population, not just those diagnosed with mental health issues. School-based anti-bullying programs have also been effective in reducing bullying, aggression, and internalizing problems among adolescents.

Vulnerable Prevention: According to Pilling et al. (2022), the perceived social status leading to maladaptive behaviour can be mitigated by "Open Dialogue" services.

Individual Approach: The HEAL Mental Health Crisis Line, 15555, has been operational since October 21, 2022, and has received 24,346 calls to date, according to Health Director-General. Out of these calls, 65% received emotional support, while 35% required specific intervention. Among the latter group, there were 206 cases of suicidal behaviour, including 89 instances of suicidal ideation and 117 suicide attempts, which were managed through emergency referrals and collaboration with relevant authorities. The hotline, staffed by Health Ministry psychology officers, operates daily from 8am to midnight, including public holidays. To complement the initiative, the My save program was launched on July 31 to monitor media coverage of suicides, and a suicide prevention training module has been developed for frontline staff. According to article on breaking the silence (Dhiviya, 2023) hours depicted in Table 1.

Table 1. The silence breaking during the Hotline and Operating hours.

Hotline	Operating Hours
Talian Kasih	24 hours, 7 days a week
Befrienders Kuala Lumpur	24 hours, 7 days a week
Women's Aid Organisation (WAO)	24 hours (Hotline), 8am - 10pm (Phone)
All Women's Action Society (AWAM)	Daily, 9.30am - 5.30pm
MIASA Crisis Helpline	Daily, 9am - 5.30pm
Malaysian Mental Health Association	Daily, 9am - 5.30pm
Life Line Association Malaysia	Daily, 9am - 5.30pm

The digital tools, 24/7 hotlines which are accessible during night time as a preventive strategy not sufficient to address the crisis.

Some other International Services , in this context are , The Day/Night (Kotsyubinsky et al., 2005)Clinic Complex: Psychiatric Facility , Mental Health and Wellbeing, Night line Services run by students in University of(Mental Health and Wellbeing - The University of Nottingham, n.d.) Nottingham , UK, Night Owls for Children and (Gillis et al., 2025) young people which is listening service for children and young people. Most of the above services are online but there are very limited targeted interventions.

Table 1. The silence breaking during the Hotline and Operating hours.

Source	Information
Core Issue	Volunteers predominantly handle cases of suicidal ideation, panic attacks, and anxiety, with high-risk suicidal cases categorized based on

Source	Information
	history and plans. Shortage of volunteers worsens the situation, aggravated by lack of face-to-face nocturnal mental health services.
Expert Opinion (Physician)	Homeopathic physician emphasizes hotline numbers and NGOs for nighttime emergencies but notes lack of awareness about specific services, heightening feelings of helplessness.
Expert Opinion (Counsellor)	Counsellor highlights escalation of domestic violence during COVID-19 due to financial stress, underscoring importance of timely intervention and nocturnal counselling services.
Expert Opinion (Professor)	Psychology professor stresses need for nocturnal mental health services, cautioning against misinterpretation of mental health issues as physical symptoms and potential reliance on sedatives.
Caregiver/Friend Interview	Friend shares experience of friend with insomnia and obsessive-compulsive symptoms, emphasizing importance of accessible mental health services during nocturnal hours.
Expert Opinion	Sleep Study underscores insomnia's role in depression within nocturnal mental health, highlighting interconnectedness and need for comprehensive interventions.

The flowchart illustrates a Predictive Model for Nocturnal Mental Health Services (NMHS) designed to address the research gap in nighttime mental health support (8 PM - 8 AM) in depicted in Figure 1. It begins with an Incoming Crisis Call, where individuals in distress reach out via hotlines, chatbots, or emergency helplines. Key information such as age, history, and crisis type is collected to determine the appropriate response. The next step involves Crisis Classification, which categorizes cases based on severity (e.g., suicidal ideation, panic attacks, domestic violence, or insomnia-related distress). To bridge the shortage of psychology professionals during nocturnal hours, the system implements Skill Training by Experts for alternative responders. These trained personnel include Ex-Service Men, Retired Nurses, Retired Mental Health Professionals, and Night Drivers, ensuring on-ground intervention and immediate crisis management depicted in Table 2. This model addresses the lack of accessible face-to-face mental health services at night by deploying trained personnel to provide psychological first aid, de-escalation support, and emergency transportation, filling the critical research gap in nighttime mental health intervention. The present study predictive model for nocturnal mental health services can become more proactive in anticipating needs and reducing the burden on professionals, especially during vulnerable nighttime hours.

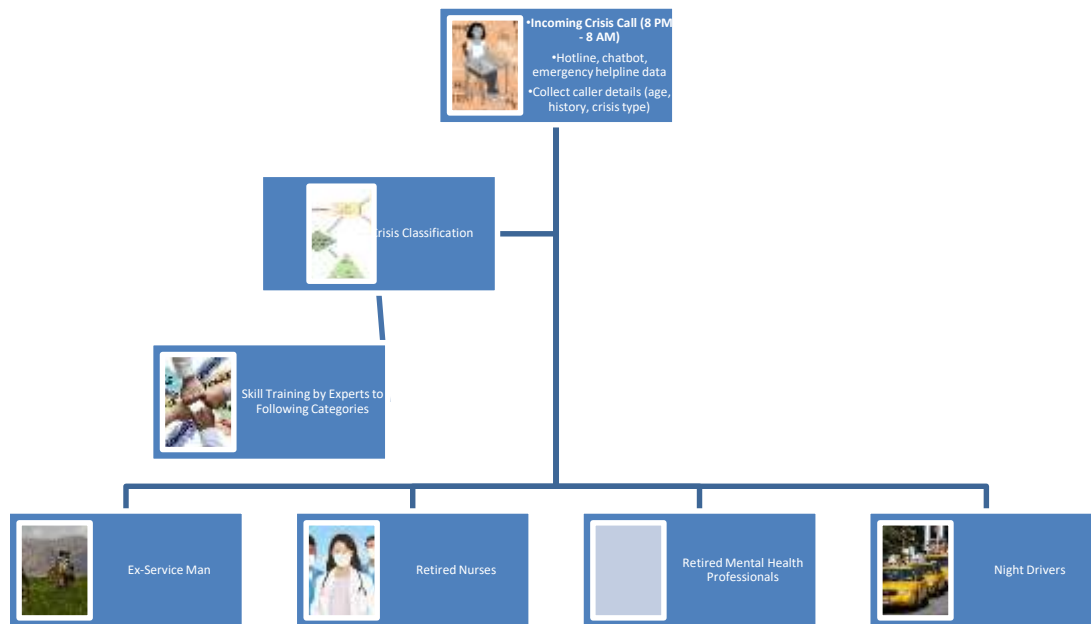


Figure 1. Predictive Model flow chat for Nocturnal Mental Health Services

Effect of Peak Time by Face to Face: From studies , in relation with schizophrenia, victims of violence, (Charlson et al., 2019) with personality disorders, and children may find (Bommersbach et al., 2023) hotlines ineffective, necessitating face-to-face (Meyer et al., 2024) night-time interventions from many experts and evidence based studies. The Mental Health Disorders differ in their presentation compare to day time and night time. The differences are creating basing on sleep-wake patterns. These patterns operate on the basis of interaction (Åslund et al., 2023) between circadian rhythm and Homeostatic sleep. It creates problem not only with sleep disorders like Insomnia, parasomnia but also increase the symptoms of (Fang et al., 2019) depression, physical comorbidities at night time.

To prevent the worsening of these conditions as explained by (Arango et al., 2018) facilitator Effect and the development of comorbidities, the immediate access to mental health services can address these issues .From the literature , the delay in treatment of mental health (Altuwairqi, 2023) issues at night time is not only increasing the mental health burden but also due to its close association with physical co-morbidities (Mthoko et al., 2022) with underlying neurobiological (Yalçin et al., 2022), neuroendocrine, chronobiological mechanisms contributing to increased mortality rate of 49.7 million and the shortage of clinical psychologist who can assist in diagnosing both physical and mental health issues at the same time citing a very big gap in mental health service delivery at night time.

Even with access to digital tools and 24/7 mental health hotlines, which have proliferated in recent times, we found remarkably little academic inquiry examining the availability of face-to-face mental health services during late night. This gap in the evidence base highlights the importance of examining the availability of face-to-face support for mental health at night, particularly in emergency departments, for example, for shift workers in the ED, where overnight mental health services may only provide crisis support and no individual mental health.

Addressing these barriers, from the literature, based on the effectiveness of face-to-face mental health services (FFMHS), they can address the 1. Delay in treatment can be addressed effectively as it involves the targeted intervention to NSD. 2. Shortage of Psychiatrist can be addressed by decreasing the

mental health burden. 3. Digitalisation Addiction can be addressed. 4. It can also help in normalizing mental health issues. There are many studies on Accessibility, Availability and stigma on mental health issues but integrated studies on need of face-to-face mental health service particularly at night time are very limited.

RESULTS

Barriers to Face-to-face Mental Health Services at Night Time

Insufficient mental health personnel available at night: Despite government efforts to provide mental health services, their utilization remains low, hampered by a variety of barriers. A study exploring community perceptions of accessibility to and barriers in utilizing mental health services identified poor funding, a lack of skilled mental health human resources, and inadequate training of available personnel as significant challenges. Additionally, sociocultural factors, including community rejection of services, stigma, and misconceptions, were reported as secondary but still substantial barriers.

Accessibility issues related to mental health treatment at night time: The main issue with accessibility is not only with geographical location but also affected by shortage of psychiatrist, particularly clinical psychologist is citing a major challenge to both rural and urban areas.

Long waiting periods leading to treatment delays: The long waiting periods to limited consultations resulting to alarming situation like Delay in (Altuwairqi, 2023) Treatment (DIT), because of DIT, the mental health burden increasing day-by-day. From the study on Experiences of shift (Roennfeldt et al., 2021) workers in ED, the situation is becoming complicated due to lack of alternative for mental health emergency services. The professionals, staff requirement of both the physical and mental health treatments are (Gray et al., 2019) different.

Fear of stigma and negative help-seeking behaviour preventing individuals from seeking help at night Time:

The psychosocial problems like stigma, (Min Fui et al., 2022) dissociation which causes diachronicity ,because of non -availability at night time, stigma attached to mental health, lack of awareness, lack of proper effectiveness studies on behavioural, psychosocial interventions posing the major challenges to understand, what type of intervention is safe and creating confusion among the care givers, patients, vulnerable population thereby affecting the help -seeking behaviour. These are leading to changes in biological perspective (Salvatore et al., 2012) like circadian rhythm which is the basis for sleep-waking cycle thereby leading to depression, anxiety and psychotic problems like bipolar ,schizophrenia mostly in Gen Z ,behaviour challenges like increasing maladaptive behaviour . Almost studies are done western posing a need to study tailored interventions in context of Asian countries.

The need for integrated care models that combine physical and mental health services:

The effective nocturnal mental health services (INMHS) are crucial between 8 pm and 6 am, as this period is critical in many suicide, abuse and many Nocturnal Spectrum of Disorders (NSD). However, face-to-face services are often limited during these hours. Recent trends in mental health indicators, such as the suicide rate in Malaysia, underscore the importance of such initiatives (Isaacs et al., 2024). A study by Wong et al. (2018) found that university students prefer face-to-face interventions to effectively address problems and mitigate depersonalization caused by digital tools. Krzyzaniak et al., (2024) concluded that both telehealth and face-to-face interventions are effective in addressing mental health issues. Greenwood et al., (2022) noted that after COVID-19, the pathogenic nature of the virus increased the popularity of telehealth, while also highlighting the importance of continuing face-to-face services alongside online services.

Between 2000 and 2013, Malaysia saw a 19.7% decrease in suicide rates. However, from 2014 to 2019, there was a 17.8% increase in suicide rates, from 4.90 to 5.77 per 100,000 population (Lew et al., 2022). These statistics highlight the ongoing need for community-based mental health interventions that can prevent crises and address mental health issues before they escalate facilitating the need of involving non-clinical healthcare also. There are some innovative models, such as the COMET (Zittleman et al., 2025) training that facilitating non clinical healthcare individuals.

DISCUSSION

Our Study indicates a pressing need to enhance the availability and effectiveness of nighttime mental health services along with hotlines. By addressing the existing barriers and implementing innovative models of care, it is possible to improve mental health outcomes for individuals in crisis during the nighttime hours. Further research is essential to fully understand the dynamics of nighttime mental health issues and the effectiveness of proposed solutions.

The provision of mental health services during nighttime is crucial, yet it remains significantly limited. Addressing the barriers to these services can improve mental health outcomes, especially for those in crisis like children, people effected with personality disorders, panic attacks, abuse victims. There are limited studies that focused on interventions that are necessary to enhance access and effectiveness of face-to-face mental health care during these critical hours. The studies on effectiveness of interventions along with what type of interventions are safe also limited. Almost studies are done western posing a need to study tailored interventions in context of Asian countries.

Limited access to mental health services at night often leads to delays in treatment, worsening conditions. Psychosocial challenges, such as the stigma and fear of being labelled, further discourage individuals from seeking help during the night, compounding the issue. While digital interventions are aimed at addressing accessibility for vulnerable populations, several challenges persist, such as the digital divide, affordability of smartphones, language barriers, and data security (Loades et al., 2024). In Ireland, the Mental Health Engagement and Recovery tool (Shi et al., 2020) is addressing these issues. However, recent studies indicate that such interventions may lead to depersonalization, exacerbating mental health problems (Michal et al., 2024).

CONCLUSION

Emergency departments, while providing crisis support, often lack comprehensive mental health care during night hours. Mental health issues during nighttime hours are compounded by service accessibility, circadian disruptions, and social stigma. Solutions require a multifaceted approach that enhances service availability and addresses the unique challenges individuals face at night. The lack of available services at night is a significant gap that needs to be addressed to improve mental health outcomes.

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