**Navigating Stress in Higher Education: An Array of Intervention Strategies**

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|  | | ***Abstract*** |
| *Received:*  *Revised :*  *Accepted:* |  | *Stress is a common and significant problem faced by students in higher education institutions, with negative consequences for academic performance, mental health, and overall well-being. This concept paper explores the importance of diverse interventions to help university students manage stress. The literature review provides a comprehensive overview of various types of interventions that have been used to address stress among university students, including mindfulness-based interventions, cognitive-behavioural interventions, physical exercise interventions, and social support interventions. The paper proposes a range of interventions that could be effective in addressing stress among university students, with a particular focus on those that are culturally sensitive, easily accessible, and tailored to meet the needs and preferences of diverse student populations. The conclusion summarises the main findings and recommendations, emphasising the importance of implementing diverse stress interventions to support the well-being and academic success of all university students.* |
| ***Keywords:*** | | *Stress, higher education, interventions, student well- being, academic success.* |
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**INTRODUCTION**

Stress is an unavoidable aspect of a student's life (Anna-Babicka et al., 2021) and it is a common and significant problem faced by students in higher education institutions, such as universities and colleges (Barbara & Amalia, 2021; Juniar et al., 2021). The journey of a higher education student is challenging and requires constant adaptation and resilience (Abdul-Rashid et al., 2021; Mohamad-Faizel & Nor-Shafrin, 2020; Zaheer & Khan, 2022). This period of transition can be stressful and anxiety-inducing, leading to symptoms of disappointment, depression, and negative effects on academic performance, social relationships, and financial burdens (Cage et al., 2021; Mohd-Hafidz et al., 2017; Mohd-Shahril et al., 2017). The issue of stress in higher education is not new, but it has become increasingly prevalent in recent years. Reports indicate that stress and mental health issues are on the rise among students, and high levels of stress can have negative consequences for academic performance, mental health, and overall well-being (Pascoe et al., 2020; Richardson et al., 2020). Thus, it is crucial to explore diverse interventions that can effectively address stress and cater to individual needs and preferences.

This concept paper aims to highlight the importance of diverse interventions to help university students manage stress. The literature review provides a comprehensive overview of various types of interventions that have been used to address stress among university students, including mindfulness-based interventions, cognitive-behavioural interventions, physical exercise interventions, and social support interventions. The review emphasises the importance of considering the needs and preferences of diverse student populations when selecting and implementing stress interventions. The paper proposes a range of interventions that could be effective in addressing stress among university students, with a particular focus on those that are culturally sensitive, easily accessible, and tailored to meet the needs and preferences of diverse student populations. The conclusion summarises the main findings and recommendations, highlighting the importance of implementing diverse stress interventions to support the well-being and academic success of all university student.

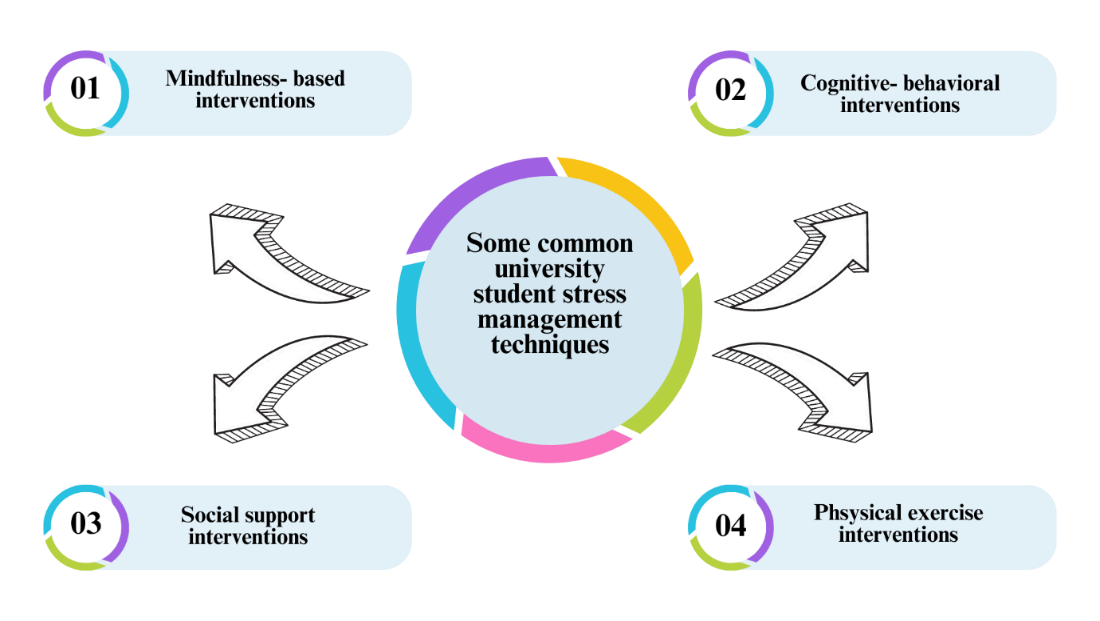
**PROBLEM STATEMENT**

Failing to address problems can lead to increased stress and emotional conflicts (Murad, 2021). Recent research has shown that stress levels among university students have been on the rise (Al-Dubai et al., 2011; Barbayannis et al., 2022) and mental health issues related to stress are associated with higher morbidity rates worldwide (Porru et al., 2021). Unfortunately, many university students report high levels of stress that can significantly impact their mental health, academic performance, and overall well-being.

Previous research indicates that students' mental health issues are due to insufficient preparation for future expectations, pressures, and increased responsibilities in both academic and social contexts (Asif et al., 2020). As students progress through their studies, they face demanding curricula, assignments, projects, and life circumstances that only increase their stress levels (Asif et al., 2020). Overcoming these challenges is critical to preventing a negative cycle of stress. However, constant academic pressure (Adedamola et al., 2022; Barbayannis et al., 2022; Lampe & Müller-hilke, 2021; Pascoe et al., 2020; Vorontsova-wenger et al., 2022) heavy workloads (Asif et al., 2020; Lampe & Müller-hilke, 2021) financial problems (Khoo & Farah, 2021; Lampe & Müller-hilke, 2021; Murad, 2021) (Khoo & Farah, 2021; Lampe & Müller-hilke, 2021; Murad, 2021), sleep disturbances (Aan et al., 2009; Al-Dubai et al., 2011; Lampe & Müller-hilke, 2021; Pascoe et al., 2020) and suffering can all contribute to deteriorating mental health. Stress has been shown to impair learning ability and academic performance (Barbayannis et al., 2022; Pascoe et al., 2020), and students who experience more academic stress have lower psychological well-being (Barbayannis et al., 2022) emphasizing the negative impact of stress on mental health. Research has also shown that excessive stress can lead to mental disorders and health problems, such as depression and anxiety (Deng et al., 2022; Pascoe et al., 2020). Therefore, it is essential to comprehend the prevalence and impact of stress on students and devise effective stress-reduction interventions. Addressing the problem of stress among students can help create a supportive and inclusive environment that promotes academic success and overall well-being.

**LITERATURE REVIEW**

The impact of stress on the psychological well-being and academic performance of university students has been extensively studied (Aina & Wijayati, 2019; Barbayannis et al., 2022; Harlina et al., 2014; Siti Fatimah et al., 2020; Slimmen et al., 2022). To address this problem, various stress interventions have been developed and tested. Stress management interventions for university students are considered a positive step in preventing mental health issues and promoting resilience and well-being (Mohd Shahril et al., 2017; Oishi, 2021). Previous researchers have proposed a variety of strategies to develop and construct effective stress interventions. Figure 1 summarizes some of the commonly used interventions for addressing stress problems in university students.



*Figure 1. Some common university student stress management techiques*

**Mindfulness-Based Interventions**

Mindfulness-based interventions entail being mindful of one's current thoughts, feelings, body sensations, and surrounds (Zhang et al., 2021). These interventions can take various forms, such as breathing exercises, meditation, walking, or body scanning, and can be practiced formally or informally in everyday life (Zhang et al., 2021). Recent studies have demonstrated the effectiveness and acceptability of mindfulness-based interventions for university students (Dawson et al., 2020; Fernandes et al., 2022; Galante et al., 2020; Lampe & Müller-hilke, 2021; Rubio et al., 2022; Vorontsova-wenger et al., 2022; Zhang et al., 2021).

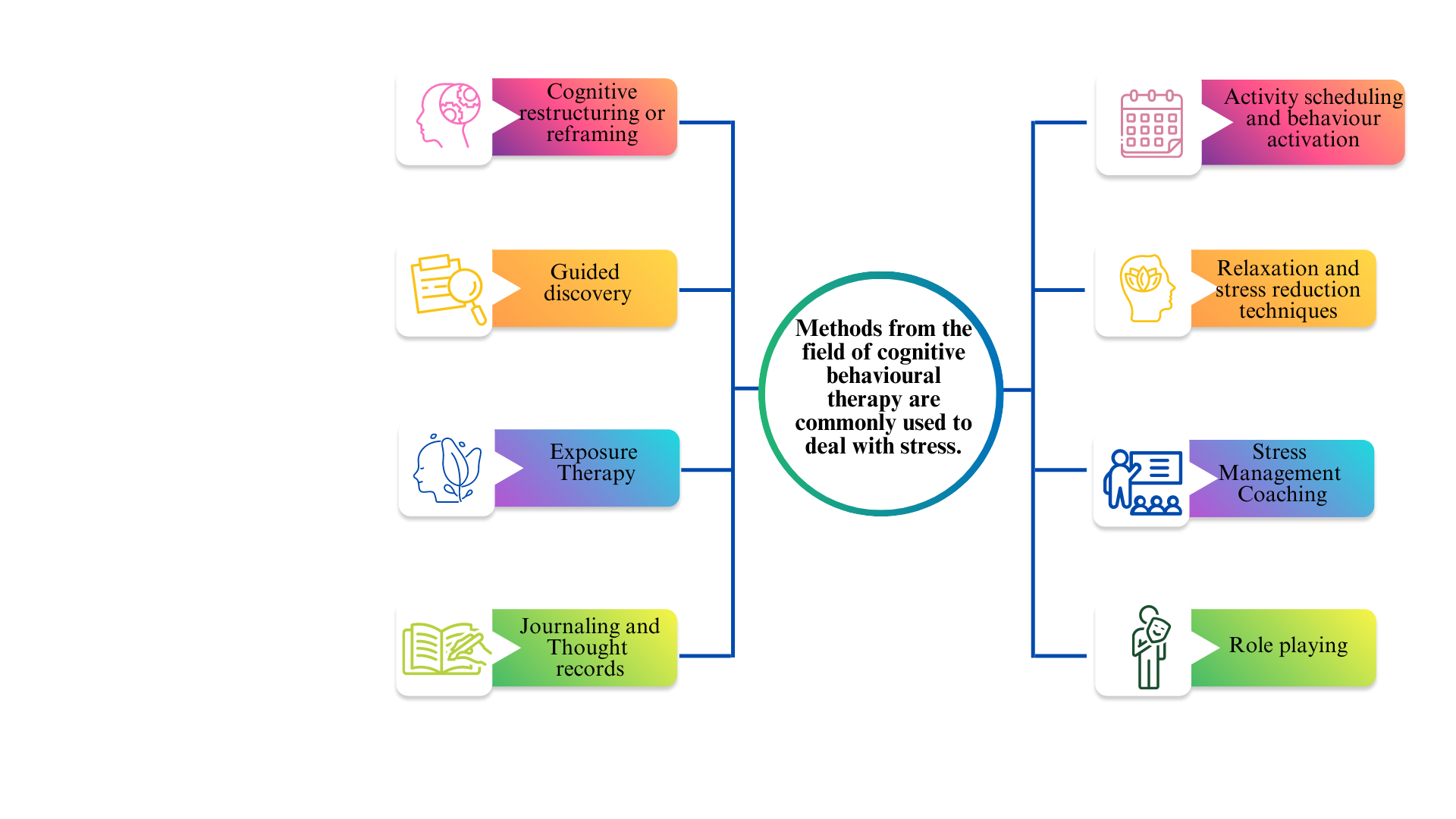
These interventions can be delivered through face-to-face sessions or online platforms (Gong et al., 2023; Karing, 2022). Online mindfulness interventions via videoconferencing have been found to be effective in treating depressive symptoms in students during physical disengagement and confinement (Karing, 2022). A review of 176 studies of mindfulness-based interventions with online participants and 193 control participants conducted by Gong et al. (2023) also found that online mindfulness-based interventions were more effective than control groups in reducing stress.

In summary, mindfulness-based interventions have been shown to be effective in reducing stress among university students, and can be delivered through various formats. Online mindfulness interventions have also been shown to be effective in reducing stress and treating depressive symptoms, even in the presence of physical disconnection and distress. Therefore, incorporating mindfulness practices into the lives of university students can be a valuable tool for promoting mental health and well-being.

**Cognitive-behavioural interventions**

The cognitive-behavioural paradigm suggests that our emotions and behaviours can impact our physical and emotional health, which can affect our overall quality of life (Fordham et al., 2018). Cognitive restructuring, behavioural adjustments, and social support are some of the techniques used in cognitive-behavioural therapy (CBT) to help individuals understand their stress levels, change their beliefs and behaviours, and address their problems (King, 2002). The primary aim of CBT is to assist individuals in identifying and modifying the problematic thoughts, attitudes, and behaviours that underlie their problems (Thingpen, 2021). CBT has been successful in various contexts, including healthcare, education, and the workplace (Thompson, 1996; Husin et al., 2023), and is the preferred form of treatment for a range of mental and behavioural health problems (Wilhelm et al., 2020).

Research has shown that cognitive-behavioural interventions can be effective in reducing stress among university students (Biro et al., 2017; Kaplan et al., 2023; Murad, 2021). These therapies help students identify and confront negative thoughts and beliefs, develop coping and problem-solving skills, and improve communication and interpersonal skills. Figure 2 highlights some common cognitive-behavioural intervention techniques for stress management.



*Figure 2. Methods from the field of cognitive behavioural therapy are commonly used to deal with stress.*

One of the advantages of CBT is that it is a time-limited and structured therapy that can be delivered in individual or group formats (J. S. Beck, 2011). This makes it a practical and cost-effective option for university counselling services that may have limited resources. Additionally, CBT can be adapted to different cultural backgrounds and delivered online (Andersson, 2009), which can increase accessibility and reduce stigma.

***Cognitive restructuring, or reframing***

Cognitive restructuring, or reframing, is a technique that aims to view life problems in a way that reduces stress and increases a sense of serenity and control (Pradhiba & Seethalakshmi, 2021).This technique is used to change problematic beliefs and outlooks in a methodical and organized manner. Nor Farahzulaikha and Mohammad Aziz Shah (2021) found that cognitive restructuring strategies were mostly effective, especially for those with pessimistic tendencies. The cognitive restructuring method has also been shown to be effective in reducing academic stress in a nonclinical, untrained population (Krafft et al., 2021).

***Guided discovery***

Guided discovery is a therapeutic discourse style that aims to help clients arrive at their solutions to problems (Overholser, 2013). This technique is used to evaluate client responses, understand their predictions and beliefs, and re-evaluate their original predictions. Guided discovery can be more time-efficient than other interventions, and it helps clients perceive things from different perspectives, allowing them to select the option that promises the greatest benefit (Hanna & Hanna, 2022).The therapy notebook is an essential tool for this technique, where clients record their emotions, daily challenges, and stress-triggering situations.

***Exposure therapy***

Exposure Therapy is a well-established stress therapy that asks the patient to focus on and recount in a therapeutic manner the facts of a traumatic incident (Rothbaum & Schwartz, 2002). This technique, also known as flooding, imaginal, in vivo, prolonged, or directed exposure, is gaining popularity in treating patients with stress disorders (Whiteside et al., 2022). Morissette et al.(2023) used Written Exposure Therapy (WET) in a study of 28 college students with stress symptoms, finding it effective when provided in a student counselling service centre.

***Journaling and thought records***

One effective strategy is journaling and thought records, which have been shown to help alleviate stress and enhance emotional restoration (Nurmaliza et al., 2022). Positive affect journaling, which focuses on positive emotions, has been linked to positive outcomes (Smyth et al., 2018), while web-based self-compassionate journaling has also been shown to be effective in reducing stress (Fay et al., 1967; Rose, 2014). In addition, journaling can help keep things in perspective during times of extreme duress (Pena-Silva et al., 2022; Utley & Garza, 2011).

***Activity scheduling and behavioral activation***

Another strategy is activity scheduling and behavioural activation, which involves engaging in pleasurable activities, planning schedules, and regulating study time (Malik et al., 2021). This can be done through mobile health applications (Na et al., 2022), or through psychoeducation on behavioural activation (Murad, 2021). Social adjustment has also been found to be important in the process of behavioural activation at the collegiate level (Felton et al., 2021).

***Relaxation techniques***

Relaxation techniques are also effective in reducing stress and can be easily taught and practiced almost anywhere (Li et al., 2020). Several relaxation techniques, such as deep breathing, progressive muscle relaxation, yoga, repetitive prayer, music therapy, art therapy, and aromatherapy, have been shown to be helpful in coping with anxiety and stressful sensations (Beck et al., 2015; Dalimunthe et al., 2022; Fitria et al., 2022; Gangadharan & Madani, 2018; Giordano et al., 2020; Ibrahim et al., 2020; Kholibrina & Aswandi, 2021; Kim et al., 2018; La Torre et al., 2020; Utami & Usiono, 2020).

***Stress Management Coaching***

Stress management coaching has been shown to offer numerous benefits for university students. Cognitive-behavioural stress management coaching has been empirically proven to be effective in helping individuals develop strategies to deal with stress (Junker et al., 2021; Traut-mattausch et al., 2021). Coaching may be done through video or phone and has been shown to be effective in reducing perceived stress and promoting well-being (Lungu et al., 2021). Professional stress coaching services can help students move beyond the mental chaos of stress and anxiety, assess executive function skills, and create a plan to build those skills that will help reduce stress. Stress management coaching courses may give students a thorough grasp of stress, its effects on individuals, and the best ways to handle it in their own life. Stress management skills training can improve students' positive psychological states, such as vitality and mental well-being, and increase academic vitality and performance (Ramadhani et al., 2022). Effective stress management techniques can also improve concentration, mental health, and academic performance.

***Role playing***

Role playing is a teaching model that comes from individual and social education components (Rahman et al., 2022; Zukdi et al., 2022). This concept assists each student in discovering personal significance in their social context and resolving personal difficulties via the use of groups. Each member is provided information about emotions and then debated with the other members to determine the best answer. Role play helps people understand themselves by exposing them to the realities of communal life, allowing them to acquire abilities in creative and logical thinking, empathy, and responsible decision-making in everyday situations (Rismi et al., 2020). Research findings demonstrate that cognitive-behavioural therapy programs help reduce psychological stress among university students by providing guidance and effective methods to cope with stressful situations (Murad, 2021). For example, a randomized controlled trial found that a psychoeducation program based on cognitive-behavioural therapy positively affected university students in several ways. Students' subjective stress levels dropped after psychoeducation, their self-efficacy levels improved, and their negative habitual thinking decreased. (Kaplan et al., 2023).

**Physical exercise interventions**

Physical exercise interventions have shown promise in reducing stress among university students. Studies have found that engaging in physical activities such as walking in a natural setting, yoga, running, walking, swimming, and various types of exercise like strength, endurance, functional, balance, and flexibility exercises can be effective in reducing perceived stress and related internalizing symptoms among adolescents (Asbury, 2020; Sharon-david & Tenenbaum, 2017; Xu et al., 2018; Yang & Ding, 2022).

It is advised that students engage in at least 30 minutes of moderate-intensity physical exercise on most days of the week in order to receive the advantages of physical activity (Tan et al., 2020; Handrianto et al., 2020). Moreover, combining physical activity with stress management behaviours such as deep breathing, meditation, and mindfulness practices can further enhance the benefits of physical exercise (Lepping et al., 2021). Studies have also found that self-reported physical activity and low sedentary time are positively associated with perceived stress (Lepping et al., 2021). Encouraging university students to engage in physical activity and stress management behaviors can lead to improved mental well-being and academic (Budzynski-Seymour et al., 2020).

**Social Support**

Social support interventions, such as peer support programs and mentoring, have been found to reduce stress among university students (Meulen et al., 2021). Peer support involves mutual exchange of emotional and practical support between people who share similar experiences of mental distress. Recent studies have shown that peer support programs can effectively reduce stress levels in university students (Meulen et al., 2021). Similarly, mentoring programs have been found to be effective for youth in managing stress (White et al., 2020). Emotional peer support interventions for university students have been found to benefit both the students receiving support and the peer supporters themselves. Students who receive emotional peer support report feeling emotional relief and an increased ability to cope with problems ( Ibrahim et al., 2021; Meulen et al., 2021). To further support students, psychological support services can be offered on campus to provide students with strategies to effectively deal with stress.

Universities can also establish guidance services for each department to provide support to students. To strengthen social connections and prevent isolation, new social events should be organised and existing activities should be enhanced. Encouraging students to engage in physical activity and sports can also be beneficial for managing stress. Campuses can offer opportunities for students to participate in sports facilities, hiking, soccer, basketball, tennis, and other social activities (Hatunoglu, 2020). Moreover, it is important to improve access to resources and information related to stress management. Frequent seminars and conferences on these topics can be organised to raise awareness and provide students with useful information. By implementing these support interventions, universities can promote the mental well-being of their students and improve their academic performance

**PROPOSED INTERVENTION**

Based on a comprehensive review of the literature, there are several interventions that have shown potential in addressing stress among university students. However, to ensure effectiveness, it is important to tailor these interventions to meet the unique needs and preferences of diverse student populations (Handrianto & Salleh, 2019; Nengsih et al., 2022). One promising intervention is the implementation of culturally sensitive stress management programs. These programs would be specifically designed to address the cultural and contextual factors that contribute to stress among different student populations. For example, studies by (Li et al., 2023) found that mindfulness-based stress reduction and culturally adapted cognitive-behavioral stress management programs, respectively, were effective in reducing stress levels among Chinese students.

Online resources and support groups have been found to be effective interventions for university students dealing with stress and anxiety. These resources can include self-help tools, guided meditation exercises, and online chat support groups, which provide accessible and convenient options for students to manage their mental health. In a study conducted by Cheshure and Van Lith (2023), it was found that online mental health techniques can reduce stress and anxiety among college students. This highlights the potential value of digital resources for promoting student well-being (Hizriani et al., 2022; Zainil et al., 2023). Furthermore, research by Schultchen et al. (2020) supports the use of mindfulness-based stress reduction programs delivered online to help university students manage their mental health. This underscores the importance of online resources and support groups, particularly during times of increased stress and isolation due to the COVID-19 pandemic. By providing a safe and supportive environment for students to seek help and connect with others who may be facing similar challenges, online resources and support groups can play a critical role in promoting student mental health and well-being.

Targeted outreach to underserved student populations is an additional effective stress intervention. This may involve providing specialized services and programming to address the unique challenges faced by students from marginalized communities such as LGBTQ+ students, students with disabilities, or first-generation college students. For instance, Stephens et al. (2015) found that a culturally tailored stress management program for first-generation college students was effective in reducing stress levels and improving academic outcomes. To implement these interventions successfully, it is important to involve students in the planning process through focus groups and surveys to gather their feedback and input. Additionally, interventions should be inclusive and accessible to all students, regardless of their background or identity. In conclusion, the implementation of a variety of stress therapies that are adapted to the requirements and preferences of university students has the potential to dramatically enhance the students' overall well-being as well as their academic performance.

**CONCLUSION**

The findings of the concept paper indicate that stress is a common issue among university students, and it is a problem that has an effect on the mental health, academic performance, and overall well-being of university students. The literature review examined various interventions used to address stress among students, such as mindfulness-based interventions, cognitive-behavioural interventions, physical exercise interventions, and social support interventions. Following the examination of the relevant literature, the proposed interventions consist of focused outreach to marginalised student populations as well as culturally sensitive interventions, online resources and support groups, and online support groups. It is recommended that future research and practise centre their attention on developing and putting into practise a variety of interventions that can successfully alleviate stress among university students. These interventions must take into account the requirements and preferences of individual students. Evaluating the efficacy of these treatments and continuing to develop them based on the feedback received from students and practitioners is also very essential. In conclusion, the concept paper emphasises the necessity for a variety of treatments that are specifically geared to address the issue of stress among university students. By resolving this issue, universities can promote the mental health and well-being of their students, thereby contributing to their academic success and overall quality of life.

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