



# International Journal of Multidisciplinary Research and Growth Evaluation.

## A Conceptual Analysis of Mental Health Screening Implementation in Primary Healthcare Settings

Leesi Saturday Komi <sup>1\*</sup>, Ashiata Yetunde Mustapha <sup>2</sup>, Adelaide Yeboah Forkuo <sup>3</sup>, Damilola Osamika <sup>4</sup>

<sup>1</sup>Independent Researcher, Chicago IL, USA

<sup>2</sup>Kwara State Ministry of Health, Nigeria

<sup>3</sup>Independent Researcher, USA

<sup>4</sup>Independent Researcher, Ohio, USA

\* Corresponding Author: **Leesi Saturday Komi**

---

### Article Info

**ISSN (online):** 2582-7138

**Volume:** 05

**Issue:** 01

**January-February 2024**

**Received:** 01-01-2024

**Accepted:** 04-02-2024

**Page No:** 1714-1719

### Abstract

The integration of mental health screening within primary healthcare settings is vital for the early detection and intervention of mental health conditions. This paper presents a comprehensive conceptual analysis of the implementation of mental health screening in primary care, highlighting its significant impact on patient outcomes, healthcare system efficiency, and public health. The discussion begins with an overview of the importance of mental health screening and the current challenges faced in its implementation. Theoretical frameworks and models supporting mental health screening are examined, demonstrating their applicability in primary healthcare. Key components for effective implementation are identified, including essential elements, integration strategies, and potential barriers and facilitators. The analysis reveals that mental health screening can significantly improve patient outcomes by facilitating early treatment, enhancing patient engagement, and preventing severe health complications. For healthcare systems, the benefits include increased efficiency, cost-effectiveness, and improved care coordination. Broader public health implications are discussed, emphasizing the role of mental health screening in addressing health disparities and informing public health strategies. The paper concludes with practical recommendations for policymakers, healthcare providers, and stakeholders to ensure the successful integration of mental health screening into primary care, ultimately contributing to a more effective and equitable healthcare system.

**DOI:** <https://doi.org/10.54660/IJMRGE.2024.5.1.1714-1719>

**Keywords:** Mental health screening, Primary healthcare, Early detection, Patient outcomes, Healthcare efficiency, Public health

---

### 1. Introduction

Mental health is crucial to overall health, yet it often remains under-addressed in primary healthcare settings. Mental health screening is the process of identifying individuals at risk of or currently experiencing mental health disorders through systematic assessment (Otu, Charles, & Yaya, 2020). Integrating mental health screening into primary healthcare can play a pivotal role in early detection and intervention, thereby improving patient outcomes and reducing the burden on healthcare systems. This integration is particularly important given the high prevalence of mental health disorders globally and the significant proportion of individuals who do not receive timely or adequate care (Franz, Cronin, Yeager, Burns, & Singh, 2023).

The background on the importance of mental health screening in primary healthcare is multifaceted. Firstly, primary healthcare providers are often the first point of contact for individuals seeking medical assistance, placing them in a unique position to identify early signs of mental health issues (Oman, 2023).

Early detection through screening can lead to timely and appropriate interventions, which are essential for managing conditions like depression, anxiety, and other mental health disorders. Secondly, mental health disorders often coexist with physical health conditions, creating a need for integrated care approaches that address both aspects simultaneously. Effective screening can ensure that mental health issues do not go unnoticed and untreated, which can otherwise exacerbate physical health problems and vice versa (Stein *et al.*, 2022).

Despite its importance, there are numerous challenges and gaps in the implementation of mental health screening in primary healthcare. One significant challenge is the stigma associated with mental health, which can deter individuals from seeking help or disclosing their symptoms (Brower, 2021). Healthcare providers themselves may also have biases or lack adequate training in mental health, further hindering effective screening and treatment. Additionally, systemic barriers include limited resources, insufficient time during consultations, and a lack of standardized screening tools tailored for primary healthcare settings. These gaps result in inconsistent practices and missed opportunities for early intervention (Ong *et al.*, 2020).

This paper aims to conduct a conceptual analysis of mental health screening implementation in primary healthcare settings. By exploring theoretical frameworks, key components of effective implementation, and the impact on patient outcomes and healthcare systems, this paper aims to comprehensively understand the current landscape and offer practical recommendations for improvement. The objectives are to highlight the importance of mental health screening, identify barriers and facilitators to its implementation, and propose strategies to enhance its integration into primary healthcare. Through this analysis, the paper seeks to contribute to the ongoing discourse on improving mental health care delivery and support efforts towards a more holistic approach to health.

## 2. Theoretical Framework

### 2.1 Relevant theories and models that support mental health screening

Understanding the theoretical underpinnings of mental health screening in primary healthcare is essential for appreciating its importance and for devising effective implementation strategies. Several theories and models provide a foundation for understanding how mental health screening can be integrated into primary healthcare settings. These theories offer insights into the processes of behavior change, the dynamics of healthcare delivery, and the interactions between patients and healthcare providers. The Health Belief Model (HBM) is a primary theoretical framework relevant to mental health screening (Dsouza, Van den Broucke, Pattanshetty, & Dhoore, 2021). The HBM posits that an individual's decision to engage in health-promoting behaviors, such as participating in mental health screening, is influenced by their perceptions of the severity of a health issue, their susceptibility to it, the benefits of taking preventive action, and the barriers to doing so (Ritchie, Van den Broucke, & Van Hal, 2021). In the context of primary healthcare, this model suggests that patients are more likely to agree to mental health screening if they believe that mental health issues are serious and that they are at risk. They must also perceive the benefits of early detection and believe that the process of screening is free from significant barriers, such as

time constraints or stigma (Zhao, Zhao, & Song, 2022).

Another relevant model is the Theory of Planned Behavior (TPB), which extends the HBM by incorporating the role of social norms and perceived behavioral control in influencing health behaviors (Barattucci *et al.*, 2022). According to the TPB, an individual's intention to engage in mental health screening is shaped by their attitudes towards the behavior, the perceived social pressure to undertake it, and their confidence in their ability to complete it. This theory is particularly pertinent in primary healthcare settings where healthcare providers' recommendations often influence patients' decisions, the support of family and peers, and their confidence in navigating the healthcare system (Aliabadi, Gholamrezai, & Ataei, 2020).

The Social Ecological Model (SEM) provides a broader perspective by emphasizing the multiple levels of influence on health behaviors, ranging from individual factors to broader societal influences. In the context of mental health screening, the SEM suggests that successful implementation requires addressing factors at various levels, including individual patient characteristics, interpersonal relationships with healthcare providers, organizational practices within healthcare settings, community norms, and policies at the societal level (Uchendu, Windle, & Blake, 2020). This model underscores the need for a multifaceted approach to integrating mental health screening into primary healthcare, recognizing that a complex interplay of influences shapes individual behavior (Alghzawi & Ghanem, 2021).

The Chronic Care Model (CCM) is also highly relevant to the discussion of mental health screening. The CCM emphasizes the importance of a proactive, planned approach to managing chronic illnesses, including mental health conditions (Timpel *et al.*, 2020). It highlights the role of prepared and proactive healthcare teams, informed and activated patients, and supportive healthcare systems. Applying this model to mental health screening in primary healthcare settings involves creating systems that facilitate regular screening, providing training and resources for healthcare providers, and ensuring that patients are informed and engaged in their care (Petrelli *et al.*, 2021).

These theories collectively provide a robust framework for understanding the factors that influence the uptake and effectiveness of mental health screening in primary healthcare. They highlight the importance of addressing individual perceptions and behaviors, the influence of social and interpersonal factors, and the need for supportive organizational and policy environments.

### 2.2 Theories application to primary healthcare settings

Applying these theories to primary healthcare settings involves several practical considerations. First, healthcare providers must be trained to recognize the importance of mental health screening and to communicate its benefits effectively to patients. This includes addressing common barriers such as stigma and time constraints and creating an environment where patients feel comfortable discussing mental health issues (Organization, 2021).

Second, healthcare organizations must develop and implement standardized screening protocols that are integrated into routine care. This requires collaboration across various healthcare system levels, from policymakers to frontline providers, to ensure that screening is feasible, efficient, and effective. The use of electronic health records (EHRs) and other technologies can facilitate this process by

providing tools for tracking and managing screening outcomes (Duggan *et al.*, 2020).

Third, community engagement is crucial for creating a supportive environment for mental health screening. This involves working with community leaders, patient advocacy groups, and other stakeholders to raise awareness about mental health's importance and reduce stigma. It also means addressing broader social determinants of health that can impact mental health and access to care. Finally, policymakers must create supportive policies and funding mechanisms that prioritize mental health screening and integrate it into broader public health strategies. This includes ensuring primary healthcare providers have the resources and support to effectively implement screening programs (Ocloo, Garfield, Franklin, & Dawson, 2021).

### 3. Key components of effective implementation

#### 3.1 Essential elements for successful mental health screening

The first key component of effective implementation is the selection of appropriate screening tools. These tools must be validated, reliable, and suitable for the primary healthcare context. They should be easy to administer, score, and interpret by healthcare providers who may not be mental health specialists. Commonly used screening instruments include the Patient Health Questionnaire (PHQ-9) for depression and the Generalized Anxiety Disorder (GAD-7) scale for anxiety. These tools are well-supported by evidence and are widely accepted in clinical practice (Pappa, Barnett, Berges, & Sakkas, 2021).

Another essential element is the training of healthcare providers. Primary healthcare professionals, including physicians, nurses, and allied health workers, need adequate training to identify and manage mental health conditions. This training should cover the use of screening tools, interpretation of results, and appropriate referral pathways. Addressing stigma and cultural sensitivity issues is vital to ensure that providers can offer compassionate and effective care (Lim *et al.*, 2023).

Integration of screening results into patient care plans is another critical component. Screening should not be a standalone activity but part of a comprehensive approach to patient care. This involves developing protocols for follow-up assessments, treatment, and referrals to mental health specialists when necessary. Effective integration ensures that patients receive continuous and coordinated care, which is essential for managing mental health conditions (Karam *et al.*, 2021).

#### 3.2 Strategies for integration into primary healthcare practices

Several strategies can be employed to effectively integrate mental health screening into primary healthcare practices. One effective approach is the use of electronic health records (EHRs) to facilitate screening and follow-up. EHRs can be programmed to prompt healthcare providers to administer screening tools during patient visits, ensuring that mental health is regularly assessed. Additionally, EHRs can help track patient progress, manage follow-up appointments, and ensure continuity of care (Clark *et al.*, 2021).

Another strategy is to adopt a collaborative care model, where primary healthcare providers work closely with mental health specialists. This model involves regular consultations and shared care plans between primary care and mental health

professionals. By fostering a team-based approach, collaborative care models enhance the capacity of primary healthcare settings to address mental health needs effectively (Janett & Yeracaris, 2020). Engaging patients in their care is also crucial for successful integration. This can be achieved through patient education and involvement in decision-making processes. Providing patients with information about the importance of mental health screening and the benefits of early detection can increase their willingness to participate in screening programs. Additionally, involving patients in developing their care plans can enhance adherence to treatment and improve outcomes (Barter & Cooper, 2021).

#### 3.3 Potential barriers and facilitators to implementation

Several barriers can hinder the effective implementation of mental health screening in primary healthcare. One significant barrier is the stigma associated with mental health conditions, which can prevent patients from seeking help and disclosing symptoms. This stigma can also affect healthcare providers, who may feel uncomfortable discussing mental health issues or lack confidence in their ability to manage these conditions.

Resource constraints are another major barrier. Primary healthcare settings often face limited time, staff, and financial resources, which can impede the implementation of comprehensive screening programs. Overburdened healthcare providers may struggle to incorporate additional screening tasks into their routine practices, leading to inconsistent implementation. The lack of standardized protocols and guidelines can also pose challenges. Without clear protocols, healthcare providers may be unsure about when and how to conduct screenings, interpret results, and follow up with patients. This lack of standardization can lead to variability in screening practices and reduce the overall effectiveness of screening programs (Adelodun & Anyanwu).

Despite these barriers, several facilitators can support the implementation of mental health screening. One facilitator is strong leadership and organizational support. Healthcare organizations prioritizing mental health and allocating resources for screening programs are more likely to achieve successful implementation. Support from leadership can also foster a culture that values mental health and encourages providers to engage in screening activities.

Training and education programs for healthcare providers are critical facilitators. When providers are equipped with the knowledge and skills to conduct mental health screenings confidently, they are more likely to integrate these practices into their routine care. Ongoing professional development opportunities can help maintain provider competence and address emerging issues in mental health care. Patient engagement and community involvement are also important facilitators. Educating patients about mental health and reducing stigma can increase their acceptance of screening programs. Community outreach and collaboration with local organizations can help build a supportive environment for mental health initiatives and enhance the overall success of screening programs (Johnson, Olamijuwon, Cadet, Osundare, & Ekpobimi; Shittu, Ehidiamen, Ojo, & Christophe, 2024).

In conclusion, effective implementation of mental health screening in primary healthcare settings involves identifying essential elements such as appropriate screening tools, provider training, and integration into care plans. Strategies

like utilizing EHRs, adopting collaborative care models, and engaging patients are crucial for successful integration. Addressing barriers like stigma, resource constraints, and lack of standardized protocols while leveraging facilitators such as strong leadership, training programs, and community involvement can significantly enhance the effectiveness of mental health screening efforts. By focusing on these key components, primary healthcare providers can improve early detection and intervention for mental health conditions, ultimately leading to better patient outcomes and overall public health (Ehidiemen & Oladapo, 2024c; Mbunge *et al.*, 2024).

#### 4. Impact on patient outcomes and healthcare systems

##### 4.1 Improved patient outcomes

Mental health screening improves patient outcomes by facilitating early detection and intervention. Many mental health conditions, such as depression and anxiety, can go unnoticed and untreated if not proactively identified. Screening enables healthcare providers to recognize these conditions at an early stage, allowing for timely intervention. Early treatment can prevent the progression of mental health issues, reduce the severity of symptoms, and improve the overall quality of life for patients.

Patients who undergo regular mental health screening are more likely to receive appropriate care, including counseling, medication, and referrals to mental health specialists. This comprehensive approach to care can lead to better management of mental health conditions, reducing the risk of complications and comorbidities (Ehidiemen & Oladapo, 2024b). For instance, early identification and treatment of depression can decrease the likelihood of substance abuse, suicide, and chronic physical health conditions such as cardiovascular diseases. Moreover, mental health screening can enhance patient engagement and empowerment. When patients are involved in the screening process and informed about their mental health status, they are more likely to participate actively in their treatment plans. This engagement can lead to better adherence to prescribed therapies and follow-up appointments, ultimately improving treatment outcomes (Adelodun & Anyanwu; M. C. Kelvin-Agwu, M. O. Adelodun, G. T. Igwama, & E. C. Anyanwu, 2024).

##### 4.2 Benefits for healthcare systems

Implementing mental health screening in primary care also significantly benefits healthcare systems. One of the primary advantages is improved efficiency. By identifying mental health issues early, healthcare providers can address these conditions before they become severe and require more intensive and costly interventions. This proactive approach can reduce the burden on emergency departments and inpatient psychiatric services, freeing up resources for other critical healthcare needs.

Mental health screening can also lead to cost savings for healthcare systems. Early detection and treatment of mental health conditions can prevent the escalation of these issues into more complex and expensive health problems. For example, untreated depression can lead to increased healthcare utilization, including frequent doctor visits, hospitalizations, and the use of emergency services. By addressing mental health conditions early, healthcare systems can reduce these costs and allocate resources more effectively. Additionally, mental health screening can improve care coordination within healthcare systems.

Primary care providers often serve as the first point of contact for patients, making them well-positioned to identify mental health needs and coordinate care with mental health specialists. This integrated approach ensures that patients receive comprehensive and continuous care, improving overall health outcomes and system efficiency (Ehidiemen & Oladapo, 2024a; Johnson, Weldegeorgise, Cadet, Osundare, & Ekpobimi).

##### 4.3 Broader implications for public health

Beyond individual patient outcomes and healthcare system benefits, mental health screening has broader implications for public health. Mental health conditions are a leading cause of disability worldwide, affecting millions of people and contributing to a significant burden of disease. Public health systems can address this burden more effectively by implementing widespread mental health screening (Adelodun & Anyanwu, 2024b).

Screening in primary care can help identify mental health trends and needs within communities, providing valuable data for public health planning and policy development. This information can guide the allocation of resources, the design of targeted interventions, and the implementation of prevention strategies. For example, data from mental health screenings can inform public health campaigns aimed at reducing stigma, promoting mental health awareness, and encouraging help-seeking behaviors (M. C. Kelvin-Agwu, M. O. Adelodun, G. T. Igwama, & E. C. Anyanwu, 2024a; Ojukwu *et al.*).

Moreover, mental health screening can contribute to populations' overall well-being and productivity. Mental health conditions can significantly impact individuals' ability to work, study, and engage in social activities. By addressing these conditions early, screening can help individuals maintain their societal roles and contribute to economic and social development. This, in turn, can reduce the broader social and economic costs associated with mental health conditions, such as lost productivity, disability benefits, and social support services (Adelodun & Anyanwu, 2024a).

Mental health screening can also play a crucial role in addressing health disparities. Mental health conditions often disproportionately affect vulnerable and underserved populations, including low-income individuals, racial and ethnic minorities, and those with limited access to healthcare. By integrating mental health screening into primary care, healthcare systems can ensure that these populations receive timely and appropriate mental health services, promoting health equity and reducing disparities (M. C. Kelvin-Agwu, M. O. Adelodun, G. T. Igwama, & E. C. Anyanwu, 2024b; Segun-Falade *et al.*, 2024).

#### 5. Conclusion and Recommendations

##### 5.1 Conclusion

The integration of mental health screening in primary healthcare is essential for early detection and treatment of mental health conditions, which can prevent the escalation of symptoms and reduce the burden of comorbid physical illnesses. Early identification facilitates timely intervention, resulting in better management of mental health conditions, improved patient quality of life, and reduced healthcare costs. Screening also plays a pivotal role in engaging patients in their care, increasing treatment plan adherence, and fostering a collaborative patient-provider relationship.

Healthcare systems benefit significantly from the

incorporation of mental health screening. By addressing mental health issues early, healthcare systems can reduce the demand on emergency services and inpatient care, leading to more efficient use of resources. Cost savings are also realized through the prevention of severe mental health episodes that require expensive interventions. Furthermore, mental health screening enhances care coordination, ensuring patients receive comprehensive and continuous care across the healthcare spectrum.

From a public health perspective, mental health screening provides valuable data that can inform public health strategies and policies. It helps identify mental health trends and disparities, enabling targeted interventions and resource allocation. This approach improves individual health outcomes and promotes health equity by ensuring that vulnerable and underserved populations receive necessary mental health services.

## 5.2 Recommendations

Policymakers should prioritize the integration of mental health screening into primary healthcare frameworks. This can be achieved by developing and implementing policies that mandate routine mental health screening for all patients in primary care settings. Additionally, funding should be allocated to support the training of primary care providers in mental health assessment and intervention. Policymakers should also advocate for the expansion of mental health services, including access to mental health specialists and support for telehealth initiatives, to ensure comprehensive care for all patients.

Healthcare providers should embrace mental health screening as a routine part of patient care. Training and continuous professional development in mental health assessment and intervention are crucial for primary care providers to effectively identify and manage mental health conditions. Providers should also adopt a patient-centered approach, involving patients in the screening process and openly discussing the results and subsequent steps. Collaboration with mental health specialists is essential to provide holistic care and ensure patients receive appropriate follow-up and support.

Stakeholders, including healthcare organizations, insurance companies, and community groups, play a vital role in supporting mental health screening initiatives. Healthcare organizations should integrate mental health screening protocols into electronic health records and workflow processes to streamline implementation. Insurance companies should cover mental health screening as a preventive service, reducing financial barriers for patients. Community groups can help raise awareness about the importance of mental health screening and reduce stigma associated with mental health conditions.

## 6. References

- Adelodun MO, Anyanwu EC. Evaluating the environmental impact of innovative radiation therapy techniques in cancer treatment.
- Adelodun MO, Anyanwu EC. Global standards in radiation safety: a comparative analysis of healthcare regulations.
- Adelodun MO, Anyanwu EC. Comprehensive risk management and safety strategies in radiation use in medical imaging. 2024a.
- Adelodun MO, Anyanwu EC. Environmental and patient safety: advances in radiological techniques to reduce radiation exposure. 2024b.
- Alghzawi HM, Ghanem FK. Social ecological model and underage drinking: a theoretical review and evaluation. *Psychology*. 2021;12(5):817–28.
- Aliabadi V, Gholamrezai S, Ataei P. Rural people's intention to adopt sustainable water management by rainwater harvesting practices: application of TPB and HBM models. *Water Supply*. 2020;20(5):1847–61.
- Barattucci M, Pagliaro S, Ballone C, Teresi M, Consoli C, Garofalo A, *et al*. Trust in science as a possible mediator between different antecedents and COVID-19 booster vaccination intention: an integration of health belief model (HBM) and theory of planned behavior (TPB). *Vaccines*. 2022;10(7):1099.
- Barter L, Cooper CL. The impact of electronic medical record system implementation on HCV screening and continuum of care: a systematic review. *Ann Hepatol*. 2021;24:100322.
- Brower KJ. Professional stigma of mental health issues: physicians are both the cause and solution. *Acad Med*. 2021;96(5):635–40.
- Clark RE, Milligan J, Ashe MC, Faulkner G, Canfield C, Funnell L, *et al*. A patient-oriented approach to the development of a primary care physical activity screen for embedding into electronic medical records. *Appl Physiol Nutr Metab*. 2021;46(6):589–96.
- Dsouza JP, Van den Broucke S, Pattanshetty S, Dhoore W. The application of health behavior theories to promote cervical cancer screening uptake. *Public Health Nurs*. 2021;38(6):1039–79.
- Duggan C, Dvaladze A, Rositch AF, Ginsburg O, Yip CH, Horton S, *et al*. The breast health global initiative 2018 global summit on improving breast healthcare through resource-stratified phased implementation: methods and overview. *Cancer*. 2020;126:2339–52.
- Ehidiamen AJ, Oladapo OO. Enhancing ethical standards in clinical trials: a deep dive into regulatory compliance, informed consent, and participant rights protection frameworks. *World J Biol Pharm Health Sci*. 2024;20(1):309–20. Available from: <https://doi.org/10.30574/wjbphs.2024.20.1.0788>
- Ehidiamen AJ, Oladapo OO. Innovative approaches to risk management in clinical research: balancing ethical standards, regulatory compliance, and intellectual property concerns. *World J Biol Pharm Health Sci*. 2024;20(1):349–63. Available from: <https://doi.org/10.30574/wjbphs.2024.20.1.0791>
- Ehidiamen AJ, Oladapo OO. The intersection of clinical trial management and patient advocacy: how research professionals can promote patient rights while upholding clinical excellence.
- Franz B, Cronin CE, Yeager VA, Burns A, Singh SR. Overview of the most commonly identified public health needs and strategies in a nationally representative sample of nonprofit hospitals. *Med Care Res Rev*. 2023;80(3):342–51.
- Janett RS, Yeracaris PP. Electronic medical records in the American health system: challenges and lessons learned. *Cien Saude Colet*. 2020;25:1293–304.
- Johnson OB, Olamijuwon J, Cadet E, Osundare OS, Ekpobimi HO. Optimizing predictive trade models through advanced algorithm development for cost-efficient infrastructure.

19. Johnson OB, Weldegeorgise YW, Cadet E, Osundare OS, Ekpobimi HO. Developing advanced predictive modeling techniques for optimizing business operations and reducing costs.
20. Karam M, Chouinard M-C, Poitras M-E, Couturier Y, Vedel I, Grgurevic N, *et al.* Nursing care coordination for patients with complex needs in primary healthcare: a scoping review. *Int J Integr Care.* 2021;21(1).
21. Kelvin-Agwu M, Adelodun MO, Igwama GT, Anyanwu EC. The impact of regular maintenance on the longevity and performance of radiology equipment. 2024.
22. Kelvin-Agwu MC, Adelodun MO, Igwama GT, Anyanwu EC. Advancements in biomedical device implants: a comprehensive review of current technologies. 2024a.
23. Kelvin-Agwu MC, Adelodun MO, Igwama GT, Anyanwu EC. Strategies for optimizing the management of medical equipment in large healthcare institutions. *Strategies.* 2024;20(9):162–70.
24. Lim KHJ, Ntellas P, Anderson D, Simpson L, Braun M, Adamou M, *et al.* The mental health burden of patients with colorectal cancer receiving care during the COVID-19 pandemic: results of the PICO-SM study. *Cancers.* 2023;15(4):1226.
25. Mbunge E, Fashoto SG, Akinnuwesi BA, Metfula AS, Manyatsi JS, Sanni SA, *et al.* Machine learning approaches for predicting individual's financial inclusion status with imbalanced dataset. Presented at: Computer Science On-line Conference; 2024.
26. Ocloo J, Garfield S, Franklin BD, Dawson S. Exploring the theory, barriers and enablers for patient and public involvement across health, social care and patient safety: a systematic review of reviews. *Health Res Policy Syst.* 2021;19:1–21.
27. Ojukwu PU, Cadet E, Osundare OS, Fakeyede OG, Ige AB, Uzoka A. Advancing green bonds through FinTech innovations: a conceptual insight into opportunities and challenges.
28. Oman D. Mindfulness for global public health: critical analysis and agenda. *Mindfulness.* 2023;1–40.
29. Ong WJ, Shahwan S, Goh CMJ, Tan GTH, Chong SA, Subramaniam M. Daily encounters of mental illness stigma and individual strategies to reduce stigma—perspectives of people with mental illness. *Front Psychol.* 2020;11:590844.
30. World Health Organization. Guidance on community mental health services: promoting person-centred and rights-based approaches. Geneva: World Health Organization; 2021.
31. Otu A, Charles CH, Yaya S. Mental health and psychosocial well-being during the COVID-19 pandemic: the invisible elephant in the room. *Int J Ment Health Syst.* 2020;14(1):38.
32. Pappa S, Barnett J, Berges I, Sakkas N. Tired, worried and burned out, but still resilient: a cross-sectional study of mental health workers in the UK during the COVID-19 pandemic. *Int J Environ Res Public Health.* 2021;18(9):4457.
33. Petrelli F, Cangelosi G, Nittari G, Pantanetti P, Debernardi G, Scuri S, *et al.* Chronic care model in Italy: a narrative review of the literature. *Prim Health Care Res Dev.* 2021;22:e32.
34. Ritchie D, Van den Broucke S, Van Hal G. The health belief model and theory of planned behavior applied to mammography screening: a systematic review and meta-analysis. *Public Health Nurs.* 2021;38(3):482–92.
35. Segun-Falade OD, Osundare OS, Kedi WE, Okeleke PA, Ijomah TI, Abdul-Azeez OY. Utilizing machine learning algorithms to enhance predictive analytics in customer behavior studies. 2024.
36. Shittu RA, Ehidiame AJ, Ojo OO, Christophe SJ. The role of business intelligence tools in improving healthcare patient outcomes and operations. 2024.
37. Stein DJ, Shoptaw SJ, Vigo DV, Lund C, Cuijpers P, Bantjes J, *et al.* Psychiatric diagnosis and treatment in the 21st century: paradigm shifts versus incremental integration. *World Psychiatry.* 2022;21(3):393–414.
38. Timpel P, Lang C, Wens J, Contel JC, Schwarz PE, Group MCS. The Manage Care Model—developing an evidence-based and expert-driven chronic care management model for patients with diabetes. *Int J Integr Care.* 2020;20(2).
39. Uchendu C, Windle R, Blake H. Perceived facilitators and barriers to Nigerian nurses' engagement in health promoting behaviors: a socio-ecological model approach. *Int J Environ Res Public Health.* 2020;17(4):1314.
40. Zhao YC, Zhao M, Song S. Online health information seeking among patients with chronic conditions: integrating the health belief model and social support theory. *J Med Internet Res.* 2022;24(11):e42447.