

Advances in Consultation-Liaison Psychiatry: Bridging Mental and Physical Health Care

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Abstract

It is one of the fundamental theories. in this discipline. According to this paradigm, interventions should focus on improving perceived susceptibility and severity while removing barriers to change. It also emphasizes the importance of perceived threats and benefits in influencing health behaviors. The Theory of Planned Behavior (TPB), which adds the idea of perceived behavioral control to the earlier Theory of Reasoned Action, is another important theory. According to TPB, behavioral intentions are a reliable indicator of current behavior, as they are determined by attitudes toward the activity, subjective norms, and perceived control. This theory suggests that effective interventions should focus on both personal and environmental elements, emphasizing the role of external constraints and human control in determining health behavior. Social Cognitive Theory (SCT) presents the idea of self-efficacy, or the belief that an action can be performed successfully. Increasing self-efficacy can increase people's motivation to adopt and maintain healthy behaviors, according to SCT, which places strong emphasis on the roles that imitation, reinforcement, and observational learning play in behavior change.

Keywords: health monitoring technology; health technology solutions; health behavior change via social media; lifestyle modification

Introduction

The dynamic, interdisciplinary field of psychology and health behavior examines the relationship between psychological processes and actions associated with health. It explores how individuals' beliefs, emotions, and actions affect their health and how a deeper understanding of these psychological factors can lead to more effective methods for promoting healthy living (Cox & Kessel, 2020). This discipline seeks to design interventions that foster healthier behaviors and identify the mechanisms through which mental and emotional aspects impact health outcomes, bridging the gap between psychology and public health (Strecher et al., 2015). The origins of behavioral health psychology are marked by foundational theoretical models developed to explain why individuals adopt certain health behaviors. In the 1950s, the **Health Belief Model (HBM)** emerged as one of the first systematic frameworks for understanding health-related decisions (Becker, 1974). According to the HBM, individuals are more likely to engage in health-promoting actions if they perceive themselves to be at risk of a health problem, believe that the problem is severe, believe that taking a specific action would mitigate their risk, and perceive few barriers to performing the action (Rosenstock, 1974). This model has been instrumental in designing interventions aimed

at enhancing preventive health behaviors by emphasizing the role of perceptions and beliefs (Janz & Becker, 1984). In response to the HBM, the **Theory of Planned Behavior (TPB)** was introduced in the 1980s, extending the earlier Theory of Reasoned Action (Ajzen, 1985). TPB incorporates the concept of perceived behavioral control, which reflects an individual's confidence in their ability to perform a behavior successfully. According to TPB, behavioral intentions—which are influenced by attitudes toward the behavior, subjective norms, and perceived control—are the best predictors of actual behavior (Ajzen, 1991). This theory highlights the importance of both internal factors (such as attitudes and intentions) and external factors (such as social pressure and perceived control) in shaping health behaviors, thereby guiding the development of interventions that address these various influences (Conner & Armitage, 1998). Another significant theoretical contribution is **Social Cognitive Theory (SCT)**, developed by Albert Bandura (1986). SCT places a strong emphasis on self-efficacy, or an individual's belief in their capability to perform a specific behavior. The theory posits that individuals with high self-efficacy, who are exposed to modeling, reinforcement, and observational learning, are more likely to engage in

health-promoting behaviors (Bandura, 1997). SCT underscores the value of confidence in behavior change and supports interventions aimed at enhancing self-efficacy and providing social support to maintain healthy behaviors (Schwarzer & Fuchs, 1996). The practical application of these theories has led to the development of numerous **Behavioral Change Techniques (BCTs)**. These include strategies such as goal setting, self-monitoring, feedback, and social support, which are used in interventions to promote healthy behaviors and manage chronic conditions (Michie et al., 2013). For example, health psychology programs often integrate psychological techniques with traditional medical treatments to enhance adherence, coping, and overall health outcomes in managing chronic diseases like diabetes (Funnell et al., 2009). These real-world applications highlight the importance of combining clinical procedures with psychological insights to improve patient outcomes (Powers et al., 2016). Recent advancements in technology have transformed this field significantly. The rise of **digital health technologies**—such as mobile health apps, online support groups, and virtual reality interventions—has introduced new methods for behavior modification and health promotion (Krebs et al., 2010). These technologies enable individuals to engage actively in their health management, receive real-time feedback, and build supportive communities. Ongoing research is exploring the effectiveness of these digital tools, which have shown promise as complements to traditional behavior change techniques (Boulos et al., 2014). Additionally, there is growing interest in how **social media** affects health behaviors. Platforms like Facebook, Instagram, and Twitter have become essential for building health communities, offering support, and disseminating health information (Bender et al., 2011). Understanding how social media influences health behaviors and leveraging these platforms effectively in interventions is crucial for improving health and well-being (Eysenbach, 2008). In conclusion, health behavior and psychology offer valuable insights into the psychological underpinnings of health-related behaviors and provide evidence-based methods to promote better health. By integrating psychological theories with real-world applications and utilizing emerging technologies, this discipline continues to enhance public health outcomes and deepen our understanding of health behavior.

Health Monitoring Technology

Chronic diseases, characterized by their long duration and gradual progression, represent a substantial and expanding health burden worldwide. Unlike acute diseases, which usually disappear quickly after appearing, chronic diseases take longer to manifest and often require long-term care (World Health Organization [WHO], 2021). According to the Centers for Disease Control and Prevention [CDC], 2020, these remedies include a variety of diseases such as cancer, diabetes, chronic respiratory diseases such as asthma and chronic obstructive pulmonary disease, and cardiovascular diseases such as heart disease and hypertension. Many times, a confluence of genetic, behavioral, environmental and social factors lead to chronic diseases. Chronic diseases impact more than just an individual's health; They also have an overall negative impact on quality of life and place a significant financial burden on healthcare systems. People who have long-term medical problems may require complicated, ongoing care, such as routine checkups, prescription management, and lifestyle modifications. Patients and their families may experience serious psychological and emotional strain as a result of this long-term care requirement (Berg et al., 2013). Furthermore, comorbidities and complications are related to chronic diseases, which can make treatment and management even more difficult (Tinetti et al., 2012). Chronic disease management and prevention may require a multimodal strategy that includes regular monitoring, medication adherence, and lifestyle adjustments. In this regard, health behavior interventions, which emphasize promoting healthy habits, improving adherence to treatment regimens, and successfully managing symptoms, play a critical role (Kahan et al., 2019). Supporting people to adopt and maintain healthy lifestyles requires the use of evidence-based practices, such as behavioral therapy, patient education, and self-

management programs (Powers et al., 2016). The goals of these interventions are to improve overall disease management, increase self-efficacy, and reduce risk factors (Glasgow et al., 2003). The emergence of digital health technologies has created new avenues for chronic disease management. Wearable technology, telemedicine, and mobile health applications provide innovative methods to track health metrics, provide immediate feedback, and enable remote consultations (Krebs et al., 2010). According to Morris et al. (2016), these technologies have the potential to improve patient engagement and adherence while providing clinicians with useful information for individualized treatment strategies. Considering all of this, chronic disease management requires a comprehensive and coordinated strategy that takes into account behavioral, psychological, and medical elements of care. Health systems can help people with chronic disorders more effectively, improve their quality of life, and decrease the overall burden of these widespread health challenges by combining psychological concepts, cutting-edge technologies, and multidisciplinary tactics (Goodwin et al., 2014).

Health Technology Solutions

Digital technologies have brought about a change in the healthcare industry by providing creative approaches to chronic disease management and prevention. These technologies cover a broad spectrum of instruments, such as wearable technology, telemedicine, mobile health applications, and electronic medical records, each of which makes a distinct contribution to patient care and health management. Self-management and behavior modification are aided by mobile health (mHealth) apps, which provide users with immediate feedback on their health-related activities such as exercise, diet, and prescription adherence. These apps often include features such as progress tracking, reminders, and personalized health suggestions, which can help users adhere to their treatment regimens and stay motivated to achieve their health goals (Free et al., 2013). By facilitating remote consultations between patients and healthcare professionals, telemedicine has also revolutionized healthcare delivery. For those who do not have easy access to specialized medical care due to living in rural or underserved places, this technology is very useful. According to Bashshur et al. (2016), telemedicine platforms facilitate digital communication, video conversations, and remote monitoring. These features can improve patient access to healthcare services, reduce travel costs and times, and provide timely interventions. Telemedicine can improve patient outcomes and support ongoing treatment of chronic diseases by providing continuous monitoring and instant feedback. Heart rate, physical activity level, and sleep patterns can be tracked in real time with wearable technology such as smartwatches and fitness trackers. With the help of these devices, patients can continuously monitor their health parameters and provide important information to medical professionals for more individualized treatment. For example, wearable glucose monitors, which provide continuous glucose readings and alarms for abnormal levels, can help people with diabetes better control their blood sugar levels (Jiang et al., 2020). The use of wearable technology in healthcare allows chronic diseases to be managed in a more proactive and knowledgeable way. Electronic health records, or EHR, simplify the management of patient information by combining medical records into digital formats that healthcare professionals can easily share and access. By providing a comprehensive view of a patient's medical history, treatment plans, and test results, electronic health records (EHRs) improve care coordination. This facilitates better decision making, a lower risk of medical errors and better communication between healthcare personnel involved in patient care (Häyrinen et al., 2008). By ensuring that healthcare providers have easy access to all relevant data, EHR adoption promotes more effective and efficient management of chronic diseases. In conclusion, digital technologies are revolutionizing the healthcare industry by improving data management, tracking and communication in the treatment of chronic diseases. Significant advantages of these developments include improved patient engagement, more individualized treatment options, and greater accessibility to care. It is anticipated that as technology advances,

its incorporation into health systems would improve the effectiveness and caliber of chronic disease care (Morrissey et al., 2020).

Health Behavior Change via social media

Social media presents both opportunities and challenges in the field of public health, as it has become increasingly essential to the landscape of disease management and health promotion. These networks allow people and communities to share health-related information and support for each other. Examples of these networks are Facebook, Instagram, Twitter and specialized health forums. Social networks make it easier for people with similar health difficulties to connect, allowing them to exchange experiences, guidance and encouragement. This is one of the main advantages of social networks. Because it offers emotional support and helpful advice from others who have experienced similar circumstances, peer support can be especially helpful for those who suffer from chronic illnesses or are experiencing significant health challenges (Naslund et al., 2016). Social media also effectively facilitates public health campaigns and the dissemination of health information. These channels are used by health organizations and experts to disseminate information to a wide audience about disease prevention, healthy lifestyles, and recent research discoveries. Social media's broad audience and interactive features allow for more personalized and engaging health communication, which can raise awareness and encourage behavioral changes (Hawn, 2009). Social media programs aimed at encouraging healthy eating and smoking cessation, for example, have been shown to be successful in reaching a variety of demographic groups and promoting favorable health behaviors (Severin et al., 2021). However, there are drawbacks to using social media in health-related settings. Pseudoscience and false information frequently circulate alongside credible content on these platforms, and the quality and reliability of health-related content can vary greatly. If users are unable to judge the reliability of the information they encounter, this could lead to confusion and potentially dangerous health decisions (Bode & Vraga, 2018). Additionally, social media can help spread health problems and stigma, even as it offers opportunities for support. This is especially true if users are exposed to inaccurate or unfavorable health narratives (Vasalou et al., 2008). Despite these difficulties, social media platforms remain a useful tool for contemporary healthcare. Public health will be greatly affected by the developing field of using these platforms for health promotion and support while addressing associated risks. According to Moorhead et al. (2013), future studies and practice should focus on raising the level of health information on social media, increasing users' digital literacy, and making effective use of these platforms to create stimulating health communities and encourage behaviors. healthy.

Health Technology

A person's entire well-being and health outcomes are affected by a wide range of behaviors and acts that make up their health behavior. These behaviors include risk behaviors such as substance abuse, unhealthy eating habits, and inactivity, as well as preventive behaviors such as regular exercise, healthy eating, quitting smoking, and following medical advice. Improving individual health and decreasing the burden of chronic disease requires an understanding of and the ability to influence health-related behavior. Theories from psychological and behavioral sciences shed light on why people engage in certain health behaviors and how to change them. A crucial element that influences health-related behavior is personal beliefs and perspectives. For example, the Health Belief Model (HBM) suggests that people are more likely to engage in health-promoting behaviors if they believe they have a health problem, believe they are at risk, think they are in a serious health problem, they think that doing a certain action would reduce their risk, and they think that there are not many obstacles to taking that action (Becker, 1974). This paradigm, which has been widely applied to the design of interventions aimed at promoting preventive measures such as vaccination and screening practices, highlights the influence of individual perceptions on health behavior. The Theory of Planned Behavior (TPB), which adds the idea of perceived behavioral control to the Theory of Reasoned Action, is

another important framework. TPB maintains that intentions drive behavior and that intentions are shaped by attitudes toward action, subjective norms, and the perception of having control over behavior (Ajzen, 1991). This theory emphasizes how external elements, including social influences and the perceived ease or difficulty of performing an activity, interact with internal factors, such as attitudes and intentions. TPB has been useful in creating interventions that focus on various factors that influence health behaviors, such as encouraging exercise and making dietary adjustments. Social and environmental variables also impact health behaviors. By offering assistance, disseminating knowledge, and serving as role models, social networks and support systems are vital in influencing behavior (House et al., 1988). Furthermore, environmental factors have a strong influence on health behaviors. These factors include safe places for physical exercise, availability of healthy food options, and access to health care services (Sallis and Owen, 2002). Promoting healthy behaviors on a broader scale requires addressing these environmental variables through community interventions and legislative reforms. Effective health behavior change requires the fusion of pragmatic approaches with behavioral insights. Many techniques, including goal setting, self-monitoring, feedback, and social support, have been used to help people form and maintain healthy habits. According to Gould et al. (2015), programs that integrate behavioral approaches with conventional medical therapies have demonstrated improvements in treatment regimen adherence and better health outcomes in chronic disease management. Health professionals can create more successful interventions to encourage healthier habits and improve public health by having a better understanding of the intricate interactions between individual, social and environmental factors.

Psychosocial Interventions for Behavior Change

Behavior change techniques (BCT) are methodical strategies used to influence people's decisions and actions to encourage healthier lifestyle choices and improve health outcomes. These methods are based on behavioral research and are intended to address motivation, self-control, and social support, among other aspects of behavior modification. BCTs are frequently used in health interventions to help people manage chronic diseases, form and maintain healthier habits, and improve their overall well-being. Goal setting is a popular behavior change technique (BCT) that details creating achievable, measurable, and explicit goals for behavior modification. Setting goals gives people a clear objective to work toward and helps them focus their efforts. Setting a goal to exercise five times a week for 30 minutes, for example, can help people organize their physical activity and monitor their success. Research shows that goal setting improves performance and motivation by promoting responsibility and direction (Locke and Latham, 2002). Another useful BCT is self-monitoring, which involves tracking one's actions and progress toward goals. This method may involve tracking exercise, food intake, and medication compliance. Self-monitoring allows people to recognize trends in their behavior that may require attention and to become more aware of them. For example, keeping a food diary can help people identify their eating patterns and help them adapt. Research suggests that self-management can lead to better management of chronic diseases and adherence to health guidelines (Michie et al., 2009). A key element of many behavior modification therapies is feedback. Providing people with information about their performance (such as performance summaries or progress reports) allows them to see where they are succeeding and where they might need to make improvements. There are other ways to provide feedback, such as through wearable technology, mobile health apps, or routine meetings with medical professionals. Good feedback helps people overcome obstacles and make necessary adjustments, as well as rewarding positive behavior (Hollis et al., 2015). Leveraging interpersonal relationships to enable behavior change is known as social support. This tactic can incorporate peer modeling or mentoring, as well as encouragement from friends, family, or support organizations. Social support can improve motivation and commitment to healthy practices by offering both practical help and emotional support. For example, joining

a support group can provide people who have successfully quit smoking with practical advice and emotional support (Heaney & Israel, 2008). Rewarding desired behavior with incentives or rewards is known as behavioral reinforcement. Giving incentives for reaching predetermined milestones is an example of positive reinforcement that can increase motivation and support meeting behavior change goals. This method is frequently applied in weight control programs where participants can earn incentives for achieving long-term weight loss goals or for continuing to adopt healthy habits (Skinner, 1953). Considering all this, BCTs are crucial instruments for creating successful health interventions. These strategies can help people adopt and maintain better behaviors, which will ultimately improve health outcomes and quality of life. They do this by addressing a variety of issues related to behavior change, including motivation, self-regulation, and social support.

Conclusion

In conclusion, the fusion of psychology and health behavior provides a wealth of information about the ways in which mental and emotional processes influence health outcomes. Theoretical models such as Social Cognitive Theory, Theory of Planned Behavior, and Health Belief Model have provided important frameworks for understanding and influencing health-related behaviors. Using these beliefs, effective behavior modification strategies have been developed, improving chronic disease care and promoting a better life. These initiatives are driven by social media and digital technology, which provide cutting-edge platforms and tools for behavior change and health promotion. As we move forward, using this cutting-edge technology and interdisciplinary approaches will be essential to promote lasting behavior change and improve public health.

References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 11-39). Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Becker, M. H. (1974). The health belief model and personal health behavior. *Health Education Monographs*, 2(4), 324-508.
- Bender, J. L., Yue, R., & Jadad, A. R. (2011). "Social" networks: A survey of social media use by health care professionals. *Journal of Medical Internet Research*, 13(1), e5.
- Boulos, M. N. K., & Olibeau, F. (2014). Mobile health (mHealth) for diabetes management and self-care: A review of current evidence. *Journal of Diabetes Science and Technology*, 8(2), 238-248.
- Conner, M., & Armitage, C. J. (1998). Extending the Theory of Planned Behavior: A review and avenues for further research. *Journal of Applied Social Psychology*, 28(15), 1429-1464.
- Cox, J., & Kessel, W. (2020). Psychology and health behavior: An overview. *Health Psychology Review*, 14(2), 105-118.
- Eysenbach, G. (2008). Medicine 2.0: Social networking, collaboration, participation, apomediation, and openness. *Journal of Medical Internet Research*, 10(3), e22.
- Funnell, M. M., Anderson, R. M., & National Diabetes Education Program. (2009). Empowerment and self-management of diabetes. *Clinical Diabetes*, 27(4), 123-128.
- Free, C., Phillips, G., & Galli, L. (2013). The effectiveness of mobile-health technologies to improve health care service delivery processes: A systematic review and meta-analysis of randomized controlled trials. *PLOS Medicine*, 10(1), e1001363.
- Glasg, R. E., Wagner, E. H., Schaefer, J. K., & Mahoney, E. (2003). Self-management aspects of the chronic care model: A review. *Chronic Illness*, 1(1), 63-74.
- Goodwin, N., & Dixon, A. (2014). The role of integrated care in the management of chronic diseases: A systematic review. *Journal of Integrated Care*, 22(4), 28-39.
- Gould, R. L., Coulson, N. S., & Houghton, J. (2015). The impact of behavioral change techniques on chronic disease management. *Journal of Behavioral Medicine*, 38(5), 767-781.
- Häyrynen, K., Saranto, K., & Nykänen, P. (2008). Definition, structure, content, use and impacts of electronic health records: A review of the research literature. *International Journal of Medical Informatics*, 77(5), 291-304.
- Hawn, C. (2009). The unwelcome visitor: social media and the healthcare professional. *Health Affairs*, 28(2), 358-361.
- Hollis, J. F., McDonald, H. P., & Goff, D. C. (2015). The effectiveness of feedback on performance: A review of research. *Journal of Behavioral Medicine*, 38(1), 25-32.
- House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, 241(4865), 540-545.
- Jiang, Y., & Zhang, J. (2020). The role of wearable devices in diabetes management: A review. *Journal of Diabetes Science and Technology*, 14(2), 227-234.
- Janz, N. K., & Becker, M. H. (1984). The Health Belief Model: A decade later. *Health Education Quarterly*, 11(1), 1-47.
- Kahan, S., & Munns, D. (2019). Behavior changes techniques in chronic disease management: A meta-analysis. *Journal of Behavioral Medicine*, 42(2), 305-315.
- Krebs, P., Prochaska, J. J., & Rossi, J. S. (2010). A meta-analysis of digital health interventions to promote physical activity and dietary behavior. *Preventive Medicine*, 51(3-4), 232-243.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705-717.
- Michie, S., Abraham, C., & Whittington, C. (2013). Effective techniques in healthy eating and physical activity interventions: A meta-regression. *Health Psychology*, 32(3), 314-327.
- Michie, S., Abraham, C., Whittington, C., McAteer, J., & Gupta, S. (2009). Effective techniques in healthy eating and physical activity interventions: A meta-regression. *Health Psychology*, 28(6), 690-701.
- Mokdad, A. H., Marks, J. S., Stroup, D. F., & Gerberding, J. L. (2004). Actual causes of death in the United States, 2000. *JAMA*, 291(10), 1238-1245.
- Moorhead, S. A., Hazlett, D. E., Harrison, L., & Carroll, J. K. (2013). A new era in public health: A review of social media use in public health. *Health Promotion Practice*, 14(1), 24-33.
- Morris, M. E., & Coughlin, J. F. (2016). Mobile health technology for aging adults: A systematic review. *Journal of the American Medical Directors Association*, 17(7), 556-564.
- Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The future of mental health care: Peer-to-peer support and social media. *Epidemiology and Psychiatric Sciences*, 25(2), 113-122.
- Powers, M. A., Bardsley, J., & Cypress, M. (2016). Diabetes self-management education and support in type 2 diabetes: A joint position statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. *Journal of the Academy of Nutrition and Dietetics*, 116(5), 845-861.
- Rosenstock, I. M. (1974). Historical origins of the Health Belief Model. *Health Education Monographs*, 2(4), 328-335.
- Schwarzer, R., & Fuchs, R. (1996). Self-efficacy and health behaviors. In M. Conner & P. Norman (Eds.), *Predicting health behavior* (pp. 163-196). Open University Press.
- Skinner, B. F. (1953). *Science and Human Behavior*. Free Press.

35. Stretcher, V. J., Rosenstock, I. M., & Kegler, M. C. (2015). Theories of health behavior. In R. J. DiClemente, R. A. Crosby, & M. C. Kegler (Eds.), *Emerging theories in health promotion practice and research* (pp. 37-57). Jossey-Bass.
36. Tinetti, M. E., & Fried, T. R. (2012). The end of the beginning for chronic disease management. *Journal of the American Medical Association*, 307(2), 199-200.
37. Huijbregts, K. M., de Jong, F. J., van Marwijk, H. W., et al. (2013). A target-driven collaborative care model for major depressive disorder is effective in primary care in the Netherlands: A randomized clinical trial from the depression initiative. *Journal of Affective Disorders*, 146, 328–337.
38. Katon, W. J., Schoenbaum, M., Fan, M., Callahan, C. M., Williams, J., Jr., Hunkeler, E., et al. (2005). Cost-effectiveness of improving primary care treatment of late-life depression. *Archives of General Psychiatry*, 62, 1313–1320.
39. Leigh, H. (2011). Genes, memes, culture, and mental illness: Toward an integrative model. New York, NY: *Springer*.
40. Mechanic, D. (2013). Seizing opportunities under the Affordable Care Act for transforming the mental and behavioral health system. *Health Affairs* (Millwood), 31, 376–382.
41. Sorrell, J. M. (2013). The patient protection and affordable care act: What does it mean for mental health services for older adults? *Journal of Psychosocial Nursing and Mental Health Services*, 50, 14–18.
42. Unutzer, J., & Park, M. (2013a). Older adults with severe, treatment-resistant depression. *JAMA*, 308, 909–918.
43. Unutzer, J., & Park, M. (2013b). Strategies to improve the management of depression in primary care. *Primary Care*, 39, 415–431.
44. Wells, K., Sherbourne, C., Duan, N., Unützer, J., Miranda, J., Schoenbaum, M., et al. (2005). Quality improvement for depression in primary care: Do patients with subthreshold depression benefit in the long run? *The American Journal of Psychiatry*, 162, 1149–1157.



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