Simulated DNP Evidence-Based project and Professional Leadership Capacity

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NR703 Applied Organizational &Leadership Concepts

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Problem

Mental health disorders, including depression, affect a significant population of the American population, with the COVID-19 pandemic exacerbating the problem. For example, a survey conducted between January and September 2020 revealed that 35% of people had a positive screen for depression (Blanch flower & Bryson, 2022). Similar trends have also been observed at the local level. For example, Brooklyn ranked third pertaining to mental health encounters in 2022, with Black/African American and Hispanic/Latino populations' having a disproportionate burden (NYC Health + Hospitals, 2022). Correspondingly, the practice setting has experienced an increased number of people presenting with depression. The practice, operating in Brooklyn, serves a significant population of Black/African American and Hispanic/Latino patients. The administrators and the clinical staff comprise the key decision-makers with complementary duties and responsibilities. However, the clinical staff cannot decide about the programs the practice setting should implement because it does not have budgetary control responsibilities. In many cases, the practice setting uses a collaborative approach, with the administration and clinical staff working together in reviewing programs and reaching consensus on programs that meet its needs. Recently, the stakeholders have focused on approaches that could be used to improve service delivery and patient outcomes. The key decision-makers agreed on the need to augment the pharmacological interventions used with additional non-pharmacological approaches. The stakeholders contend that adults with depression could benefit significantly from adjunctive non-pharmacological interventions that would ensure active participation in the recovery process.

Practice Gap

The practice site has been facing an increasing number of patients presenting with depression. Over the years, it has maintained a tradition where clinicians use pharmacological treatments for mental health problems, with only a few non-pharmacological interventions being used. Currently, the service uses behavioral therapies as the only adjunctive interventions to pharmacotherapy. The focus on drug therapy does not guarantee the achievement of optimal treatment outcomes. In addition, the excessive emphasis on pharmacotherapy has resulted in poor patient engagement in their recovery journey. The current approach does not ensure active patient engagement in self-management activities, despite the importance of pharmacotherapy in the treatment of mental health disorder. Regardless, many frontline clinicians agree that the practice setting should implement additional interventions for people with depression to enhance self-management, improve remission rates, and reduce cases of relapse. However, the site lacks specific protocols for the implementation of additional non-pharmacological interventions. Notably, the practice setting does not have a protocol or guideline to use in recommending aerobic exercises among people with depression.

The failure to prioritize beneficial non-pharmacological interventions such as aerobic intervention by the administration has denied such programs the resources essential for implementation. For example, many clinicians have not received in-job training on the implementation of aerobic exercise for depression. In addition, the absence of a specific protocol has led to inconsistent recommendation for self-management activities. Clinicians often do not follow-up on patients or offer structured guidance on approaches they could use to enhance their recovery. The gap was identified through formal and informal discussion with frontline staff, including psychiatric-mental health nurse practitioners (PMHNPs) at the site. In addition, a rapid assessment of patient records revealed many cases of relapse within short periods because of medication non-adherence and poor self-management. Some patients contacted in the

identification of the practice gap also voiced their support for additional evidence-based non-pharmacological approaches that could benefit them.

Practice Question

a. Population: Adults aged 18-64 with depression – The DNP evidence-based project will target adult patients aged 18-65 years with a diagnosis of major depressive disorder or meeting the criteria for a major depressive episode. The patients should be receiving ongoing standard care at the practice site. In addition, they should not have functional or cognitive disabilities that would prevent them from actively engaging in the intervention.
b. Intervention: Aerobic exercise – Current evidence identifies physical activity as a crucial non-pharmacological intervention for psychiatric disorders, including depression (see Table 2). For example, Wang and Wang (2020) found statistically significant effects of aerobic exercise on depression (Standard Mean Difference = -0.64, 95% CI − 0.89 − 0.39, $p < 0.01$), with moderate effects sizes on major depression and depressive symptoms (SMD = -0.57, 95% CI − 0.90, − 0.23, $p < 0.01$ and SMD = − 0.67, 95% CI − 1.00, − 0.33, $p < 0.01$, respectively).
c. Comparison: Compared to current practice
d. Outcome: Improve of depressive symptoms – Improvements in depressive symptoms measured using validated instruments such as the Patient Health Questionnaire (PHQ-9) is the project's target outcome. Evidence shows positive effects of aerobic exercise on depressive symptoms (see Table 2). However, the exercise program should be tailored in terms of intensity, duration, and frequency to meet specific individual needs (Philippot et al., 2022).
e. Time: 8 weeks

f. Practice question: Among adults aged 18-64 years with depression (P), will aerobic exercise (I), compared to current practice (C) reduce depressive symptoms (O) in 8 weeks (T)?

Leading the Practice Change Project

Leading a practice change project requires adequate engagement of the team members. At the same time, team engagement demands the application of appropriate leadership skills that ensures a project environment of mutual respect and shared values. In this regard, I would use approachability as a skill that would ensure a positive project environment. Approachability encompasses attributes such as open-mindedness, respectfulness, friendliness, and non-judgmental and supportive attitudes towards team members (Swani & Isherwood, 2019). According to Pack et al. (2022), an approachable leader fosters team engagement through fostering open and honest communication and feedback. In addition, ensuring my visibility and availability to the members through an open-door approach to leadership will ensure mutual respect and shared values. Rahmadani et al. (2022) argued that leader availability and visibility ensures positive leader-member exchanges that ensure feedback, trust-based relationship. In turn, this would drive the achievement of project goals through shared values and vision. Moreover, the approach to leadership will augment communication with the team members through frequent and open exchange of information, knowledge sharing, and feedback. Consequently, this will foster a sense of mutual engagement towards the achievement of the shared project goals. Attributes of transformative leadership would also play a crucial role in leading the project. Notably, this would involve supporting the members, motivating them, and inspiring them towards the achievement of the goals. It would also involve ensuring their autonomy by respecting and considering their opinions regarding project implementation.

References

Blanch flower, D. G., & Bryson, A. (2022). COVID and mental health in America. *PloS one*, *17*(7), e0269855. https://doi.org/10.1371/journal.pone.0269855

Kim, S., Park, J., Lee, M. Y., Oh, K., Shin, D., & Shin, Y. (2019). Physical activity and the prevention of depression: A cohort study. *General Hospital Psychiatry*, *60*, 90-97. https://doi.org/10.1016/j.genhosppsych.2019.07.010

NYC Health + Hospitals (2022). *Community Health Needs Assessment*. https://hhinternet.blob.core.windows.net/uploads/2022/07/community-health-needs-asssessment-2022.pdf

Pack, R., Columbus, L., Duncliffe, T. H., Banner, H., Singh, P., Seemann, N., & Taylor, T. (2022). "Maybe I'm not that approachable": using simulation to elicit team leaders' perceptions of their role in facilitating speaking up behaviors. *Advances in simulation (London, England)*, *7*(1), 31. https://doi.org/10.1186/s41077-022-00227-y

Philippot, A., Dubois, V., Lambrechts, K., Grogna, D., Robert, A., Jonckheer, U., Chakib, W., Beine, A., Bleyenheuft, Y., & De Volder, A. G. (2022). Impact of physical exercise on depression and anxiety in adolescent inpatients: A randomized controlled trial. *Journal of Affective Disorders*, 301, 145-153. https://doi.org/10.1016/j.jad.2022.01.011

Rahmadani, V. G., Schaufeli, W. B., Stouten, J., Zhang, Z., & Zulkarnain, Z. (2020). Engaging leadership and its implication for work engagement and job outcomes at the individual and team level: A multi-level longitudinal study. *International Journal of Environmental Research and Public Health*, *17*(3). https://doi.org/10.3390/ijerph17030776

Swani, J., & Isherwood, P. (2019). The approachable team leader: Front line perspectives on leadership in critical care. *Journal of Patient Safety and Risk Management*. https://doi.org/10.1177/2516043519887045

Wang, X., & Wang, X. (2022). Systematic review and meta-analysis of the effects of exercise on depression in adolescents. *Child and Adolescent Psychiatry and Mental Health*, *16*. https://doi.org/10.1186/s13034-022-00453-2

Table 1: Organizational Needs Assessment Practice Gap Identification

What is currently happening in the practicum site?	What should be happening in the practicum site based on current evidence?	What is the gap between what is currently happening and what should be happening (this is your practice gap)?	Why is there a gap in practice? What factors are contributing to the gap in practice?	What evidence do you have to demonstrate there is a practice gap?
The current standard practices for the management of depression in adults at the practice site emphasize pharmacological interventions with few adjunctive non-pharmacological interventions that could have synergistic effects in improving symptoms, enhancing remission, and reducing relapses.	Adults with depression and depressive symptoms require additional programs to ensure active participation in self-management to reduce symptoms without relying on medications.	Frontline clinicians, including mental health nurses acknowledge the need for additional interventions that would improve remission and reduce relapse of symptoms. They acknowledge the need for a specific protocol or guidelines for non-pharmacological interventions such as aerobic exercise that would have additional effects on patient's recovery.	The administration lacks adequate knowledge about the beneficial effects of non-pharmacological interventions such as aerobic exercise on depression, leading to low prioritization of the interventions in resource allocation. Secondly, the lack of specific protocols for non-pharmacological interventions results in inconsistent recommendations from clinicians without assessing the patients who could benefit most from aerobic exercises.	Informal and formal discussions with PMHNPs that revealed need for a clear protocol for effective implementation of non-pharmacological interventions (aerobic exercise) among patients with depression. Rapid assessment of patient records that revealed may cases of relapse and reports of medication non-adherence. Comments from patients pointed out their need for additional non-pharmacological approaches.

Table 2: Johns Hopkins Individual Evidence Summary

Article Number	Author and Date	Evidence Type	Sample, Sample Size, Setting	Findings That Help Answer the EBP Question	Observable Measures	Limitations	Evidence Level, Quality
1.	Philippot et al. (2022)	**Evidence:** Quantitative **Type:** Randomized controlled trial **Aim:** To document the effect of add-on treatment with structured physical exercise in a clinical population of adolescents hospitalized for depression and anxiety	**Sample:** Adolescents diagnosed with depression and anxiety **Sample size:** N=40 adolescent inpatients (n=20 in the intervention group, mean age 15.2 years; n=20 in the control group, mean age 15.5 years) **Setting:** AREA + Epsylon ASBL (Association Sans But Lucratif) non-profit organization in Brussels, Belgium	Linear mixed model using F-test showed significant interaction (p=0.016) in the exercise (intervention) group. Inpatients in the exercise group had a mean decrease of 3.8 points (95% CI: 1.8 – 5.7) in HADS depression symptoms, with progression from "probably pathological" score to "non-pathological" score. The control group had a mean decline of 0.7 points (95% CI: -0.7 – 2.0) in HADS depressive symptoms, remaining in the "probably pathological" score. Participants in the intervention group had a mean decrease of 0.11 (95% CI: 0.06 – 0.16) in SDS scores compared to 0.03 (95% CI: -0.02 – 0.07) in the control group. Both groups enjoyed the activities as revealed by VAS hedonia index of 7.2±1.9 in the IG and 7.6±1.5 in the CG (p=0.45). Unpaired two sample t-test revealed more effects on the IG in the VAS tiredness scale (3.9±1.9) compared to the control group (1.9±1.8) (p=0.012).	Changes in depressive symptoms severity as measured using the Hospital Anxiety and Depression Scale (HADS) and Zung Self-Assessment Depression Scale (SDS). Level of hedonia and fatigue measured using a 10cm Visual Analogue Scale	Only short-term effects of the interventions were noted because of the inadequate follow-up period The small sample did not allow an exploration of the effects of social and clinical characteristics A high dropout rate (23%) reduced the exploration of the effects Only the principal investigator and the outcome assessor were blinded, implying the possibility of Hawthorne effect on the outcomes.	Level I, A (high quality)
2.	Kim et al. (2019)	**Evidence:** Quantitative **Type**: Cohort study **Aim:** To identify the optimal amount and appropriate state of	**Sample**: Korean adults who had undergone at least two annual health examinations between 2012 and 2015	Individuals maintaining physical activity had a lower risk of depressive symptoms in both males (HR 0.81 95% CI: 0.71-0.93) and females (HR	Physical activity amount measured using the Korean version of the International Physical Activity Questionnaire-	The study had involved a mixed of young, middle-aged, and older adults limiting the generalizability of the	Level II, good quality

		physical activity for reducing incident depressive symptoms	**Sample size:** n=107,901 **Setting:** Kangbuk Samsung Hospital in Seoul and Suwon	0.84, 95% CI: 0.75-0.94).	Short Form (IPAQ-SF) Depressive symptoms as measured using the Center for Epidemiologic Studies Rating Scale for Depression	findings to any of the age groups Subjective measures of physical activity may have limited the quality of the findings CES-D was not based on exact clinical diagnosis of depression, limiting the generalizability of the findings	
3.	Wang & Wang (2020)	**Evidence:** Quantitative **Type:** Systematic review and meta-analysis **Aim:** Evaluate the effect of physical exercise on adolescent depression in the hope of developing optimum physical exercise programs	**Sample:** Randomized controlled trials **Sample size:** 15 articles involving 19 comparisons and a total sample of n=1,331 **Setting:** N/A	Exercise had a statistically significant effect on depression (Standard Mean Difference = -0.64, 95% CI − 0.89 − 0.39, $p < 0.01$). Moreover, the intervention had moderate effect sizes on those with major depression (SMD = -0.57, 95% CI − 0.90, − 0.23, $p < 0.01$) and depressive symptoms (SMD = − 0.67, 95% CI − 1.00, − 0.33, $p < 0.01$).	N/A	Only articles published in English and Chinese were used, limiting the comprehensiveness of the meta-analysis Many of the included studies used self-reported data, increasing the likelihood of bias The study samples had high heterogeneity of adoelscents with depressive symptoms	Level II, good quality