

CHALLENGES IN IMPLEMENTING A 1 HOUR WEEKLY WALK ACTIVITY AND ASSESSING SELF-ESTEEM WITHIN RESIDENTIAL PSYCHIATRIC CARE

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SUMMARY

Background: Patients with psychotic disorders often have low levels of physical activity, and there's limited data on implementing exercise programs and systematically evaluating physical health among inpatients. This study, conducted in a closed psychosis unit, aimed to explore the feasibility of a 1-hour weekly walk activity, alongside assessing self-esteem.

Subjects and methods: From February 7 to July 11, 2025, patients at the Gaudi unit in Mons, Belgium, specializing in psychotic disorder care, were offered participation in a weekly supervised walk. Out of 64 evaluated inpatients, eligible individuals could choose between a 3 km or 5 km circuit. The study also planned to assess self-esteem using the Rosenberg Self-Esteem Scale (RSES) and to conduct qualitative analysis upon admission.

Results: Over 24 weeks, the average walk participation rate was 59.86% (255 out of 426 possible participations). Most preferred the 3 km circuit (75.69%), while fewer chose the 5 km (14.9%) or the 8 km combination (9.41%). However, comprehensive assessments (RSES, qualitative evaluation) were only offered to 12 of the 64 patients. Only 6 completed the qualitative evaluation, and 10 completed the RSES. This low assessment completion rate suggests the evaluations might be too challenging for this population.

Conclusion: Implementing a weekly walk activity in a closed psychosis unit is feasible. Nevertheless, integrating a study protocol for comprehensive physical and psychological assessments proved challenging. Future projects would require adapting assessment methods to be more realistic for this setting.

Key words: psychosis - physical activity – feasibility - inpatients

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INTRODUCTION

Physical health is a fundamental determinant of overall health and well-being in psychiatric populations. Indeed, the physical health of patients suffering from alcohol use disorders (Vancampfort et al. 2019a, 2022), psychotic disorders (Scheewe et al 2019, Heggelund et al 2020, Vancampfort et al. 2021), and mood disorders (Vancampfort et al. 2017a) has been shown to be strongly impacted by sedentary lifestyles and anti-psychotic treatments (Vancampfort et al. 2017b, Perez-Cruzado et al. 2018). These factors are crucial in the management of patients with schizophrenia, in whom life expectancy is significantly reduced compared to the general population (Hjorthøj et al 2017). Many of these studies therefore suggest that this population engages in little physical activity. However, the feasibility of implementing a regular physical activity program and systematic physical health assessment among hospitalized patients with psychotic disorders remains largely unexplored (Firth et al. 2017). The establishment of physical therapeutic activities also seems complex, with a frequent obstacle being the lack of patient adherence to these activities (Shannon et al. 2020). It now seems crucial to evaluate the feasibility (Gerber et al. 2025) of implementing regular physical activity programs and commonly used tests in a psychiatric setting. Due to the many specificities of this environment - particularly patient compliance and adherence, the presence of

cognitive deficits, and safety constraints - it's important to assess whether these tests can be performed quickly, reliably, and validly. This requires evaluating the practical aspects of setting up these assessments despite the constraints present in a psychiatric unit. This study, therefore, aims to explore the feasibility of a weekly 1-hour walking program in a psychiatric ward specialized in admitting patients with psychotic disorders. Secondly, it focuses on the feasibility of assessing patients' self-esteem. Through the protocol, we explore the obstacles and facilitators to implementing such physical activity with patients diagnosed with psychosis.

SUBJECTS AND METHODS

Participants

The Gaudi unit at CHP Chêne aux Haies, Mons, Belgium, is a closed ward specializing in the admission of men and women suffering from a psychotic disorder. Hospitalization durations vary significantly, ranging from one week to over six months. Participation was offered to all patients admitted to the Gaudi unit, regardless of their DSM-5 diagnosis (American Psychiatric Association, 2013), for a total sample of 64 patients. All participants underwent a somatic assessment and an electrocardiogram as part of their admission to the ward. The aim was to include all patients capable of performing the required physical effort (based on their general health, age, motor limitations, etc.), with no formal exclusion criteria.

Intervention

From February 7, 2025, to July 11, 2025, a regular physical activity program was offered to eligible patients in the Gaudi unit at CHP Chêne aux Haies. This involved participation in a weekly 1-hour walk held every Friday morning. To encourage patient participation, the walking group was presented weekly at the community meeting as an integral part of the ward's activity program. The activity was also promoted by the entire care team and was subject to a medical order. Two routes were offered to better adapt the intensity of the effort to each person's physical capabilities: a "long circuit" of approximately 5 km and a "short circuit" of approximately 3 km. Each circuit took approximately one hour to complete. The length of the circuit varied depending on the route chosen by the accompanying staff. Patients could also opt to participate in both walks (a cumulative distance of approximately 8 km in two hours). The walks were supervised by the care team (physiotherapist, educator, and occupational therapist).

A self-esteem assessment using the Rosenberg Scale (Rosenberg 1965) was offered to certain eligible patients within the first two weeks of their admission. Patients were asked to read each statement (10 in total) and respond on a 1 to 4 scale according to their level of agreement with the statement. The calculation of these responses resulted in a total score out of 40.

In addition to the Rosenberg Scale, a qualitative anamnesis was offered to patients to evaluate their personal experience. During this qualitative anamnesis, the following questions were asked:

- What are the perceived obstacles or negative elements regarding participation in regular walking activity?
- What are the perceived motivators or positive elements regarding participation in regular walking activity?

RESULTS

Over a five-month study period, totaling 24 weeks (from February 7, 2025, to July 11, 2025), 23 walking activities were organized, each consisting of two different circuits. Sixty-four patients were hospitalized during this period, and all were invited to participate in the walking group and evaluation.

1-hour Walking Group

During the 24 weeks, the average participation rate was 59.86% (255 out of 426 possible patient participations). Of the 255 participations, 75.69% preferred the 3 km short circuit (n=193), 14.9% preferred the 5 km long circuit (n=38), and 9.41% preferred the combination of both circuits, totaling 8 km (n=24). 75% of patients (n=48) participated in at least one walk during their hospitalization. Table 1 summarizes how frequent the participation was among those 48 individuals.

Table 1. Frequency of participation

Participated in the proposed walks	Patient participations	
	n	%
at 100%	15	31.25
at least 90%	18	37.50
at least 80%	22	45.80
at least 70%	27	56.25
at least 60%	33	68.75
at least 50%	36	75.00
at least 40%	42	87.50
at least 30%	44	91.67
at least 20%	47	97.92

Despite initial concerns and the inherent risks given the specific clinical profile of the Gaudi unit, no escapes were reported during the walking activities.

Self-esteem assessment

A self-esteem assessment using the RSES was intended to be offered to all 64 eligible patients. However, this assessment was ultimately offered to 12 patients during the study period. The sample was limited due to organizational difficulties and clinical constraints. Patients had difficulty understanding the scale and required assistance from a clinician to complete the Likert scales. The difficulties were more pronounced at the beginning of the hospitalization when patients were less stable. 10 patients completed the RSES. 2 scored below 25/40 (Low self-esteem); 21/40 and 23/40, 6 scored from 25/40 to 35/40 (Normal self-esteem); 27/40, 29/40, 29/40, 29/40, 34/40 and 35/40, and 2 scored above 25/40 (High self-esteem); 35.5/40 and 40/40.

Qualitative Assessment

Only 6 out of 12 patients completed the qualitative assessment.

Patients highlighted several positive aspects of the walking group:

- *Enjoyment of the activity:* Patients enjoyed the activity.
- *Outdoor setting:* The outdoor setting was appreciated.
- *Social interaction:* The opportunity to interact with other patients was valued.
- *Accessibility:* The activity was considered accessible to everyone.

Several difficulties and concerns were raised:

- *Medication-related issues:* Fatigue exacerbated by medication and medication-induced rigidity were cited as barriers to motivation.
- *Equipment concerns:* Reluctance to wash shoes and worry about purchasing new shoes were expressed.
- *High-intensity activity challenges:* Patients experienced the need to stop due to overexertion or feared

fainting. A desire to change the activity schedule to the afternoon was noted, as patients preferred to be less fatigued.

- *Group dynamics:* Concern that some group members might be less motivated was raised.
- *Activity-specific issues:* A dislike for walking was expressed, particularly regarding the fixed circuit that offers "no freedom." Suggestions included doing breathing exercises or playing badminton.
- *Time commitment:* Patients feared that the activity might delay administrative procedures they were involved in.

DISCUSSION

The proposed 1-hour walking activity seems to have successfully reached its target population, evidenced by an average overall participation of 13 patients per week, with 75% of patients trying the activity at least once during their hospitalization.

Facilitating Factors Identified by the Care Team:

- *Multidisciplinary Team Involvement:* The engagement of the entire multidisciplinary team in promoting the activity provided consistent and structured support. Furthermore, the walking group was presented as a medical prescription, integrating physical activity into care on par with medication.
- *Shared Organizational Responsibility:* The organization of the activity was managed by several individuals beyond the initial "core" organizers. This ensured the activity's continuation as much as possible, even during holidays or organizers' absences.
- *Maintenance of Fixed Time Slots:* The walking group takes place every week on the same day and at the same time. This helped establish the activity as a reassuring and structuring routine for psychotic patients, promoting regular participation.
- *Accessibility and Low Cost:* The inherent accessibility and low cost of an activity like walking were significant advantages.
- *Adaptation of Routes to Individual Capacities:* Dividing participants into two groups with different distances encouraged a greater number of patients to participate.
- *Increased Attractiveness Through Juxtaposition with Other Activities:* Adding an enjoyable objective to certain walks (e.g., an outdoor game) infused novelty into the activity and maintained patient interest.

Hindering Factors Identified by the Care Team:

- *Continuity Challenges with Reduced Staff:* Ensuring the activity's continuity was difficult during periods of reduced staff, due to the significant workload within the unit.

- *Unpredictable Weather and Decreased Patient Motivation:* Unpredictable weather conditions led to a drop in patient motivation during unfavorable circumstances.
- *Difficulty Integrating Every Patient's Pace:* Despite having two walking levels, it was challenging to accommodate every patient's pace due to restrictive somatic comorbidities (e.g., pulmonary diseases, musculoskeletal disorders).

Clinical and Physical Health Outcomes

Formally, few effects on patients' clinical status or physical health could be evaluated following the walking group's implementation. Nevertheless, it's worth noting that the care team perceived this walking activity as a catalyst for the emergence of group dynamics and mutual aid within the unit. For instance, one patient insisted on participating in a walking group despite being mobility-impaired. The other patients demonstrated the necessary patience to accommodate this wheelchair-bound patient, despite the constraints this implied (slower pace even on the short circuit, inability to use certain paths, etc.). After their physical health stabilized, this same patient continued to participate in the walking groups on foot during their hospitalization. It's important to remember that the Gaudi unit is a closed ward, and the walking groups took place outdoors – sometimes even off-site (particularly during the "long circuits"). In this context, the absence of elopements during the walking activities could also be interpreted as a marker of the group dynamic created, as well as the patients' engagement and respect for this activity.

The Rosenberg Self-Esteem Scale (RSES)

The RSES was offered to only 12 out of the 64 patients of our sample. Only 10 completed the questionnaire. They required the help of mental health professionals. This result was below the team's expectations. It may indicate that the RSES may be too challenging for the studied population.

When using the RSES with individuals experiencing psychosis, particularly inpatients, several factors can significantly impact the accuracy and trustworthiness of the assessment.

Challenges of Using the RSES in Psychosis

Cognitive Difficulties: Psychosis, especially schizophrenia, often involves cognitive impairments. These can affect attention, concentration, working memory, and executive functions like abstract thinking and problem-solving. Patients might struggle to hold the question in mind, process its meaning, or consistently evaluate their feelings across all items. This can lead to inconsistent or unreliable responses.

Complex Wording: The RSES contains items with complex wording, especially in its French translation. These items may present comprehension challenges for some patients due to complex or negative phrasing, especially among individuals with lower literacy levels or cognitive impairments. They might misinterpret the question entirely, leading to inaccurate self-reporting. **Limited Reading Abilities:** Many individuals with severe mental illness, including psychosis, may have lower literacy levels or impaired reading comprehension. The language used in questionnaires, even seemingly simple ones like the RSES, might be too complex or abstract for them to fully grasp. This isn't just about reading words but understanding the nuanced meaning of the statements. If they can't accurately read and understand the questions, their responses won't reflect their true self-esteem.

These challenges mean that while the RSES is widely used, it's crucial to exercise clinical judgment and consider whether the patient's current cognitive state and literacy level allow for a valid assessment using this tool.

CONCLUSION

This 24-week study in a closed psychosis unit aimed to assess the feasibility of implementing a regular walking activity and self-esteem assessment. We found that a weekly 1-2 hour walking program is feasible, largely due to full team involvement, fixed schedules, low costs, and varied difficulty levels. Challenges included staffing shortages, unpredictable weather, and patients' diverse physical health. However, assessing self-esteem using the Rosenberg Self-Esteem Scale (RSES) proved difficult. Patients struggled with its complex language, likely due to limited reading abilities, cognitive impairment, and thought disorganization. This suggests that alternative assessment methods or qualitative evaluations may be more appropriate for this population

Contribution of individual authors:

Madeleine Bennert: formal analysis, investigation, writing – original draft.

Alexandra Putineanu: investigation, writing – original draft.

Damien De Cruydt: investigation, data curation.

Agathe Coquelet: investigation.

Lopez René Llano: supervision, writing – review & editing.

Juan Martin Tecco: conceptualization, formal analysis, investigation, resources, data curation, writing – original draft, writing – review & editing, visualization, supervision, project administration.

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Conflict of interest: None to declare.

References

1. Firth, J., Carney, R., Pownall, M., French, P., Elliott, R., Cotter, J., & Yung, A. R. (2017). *Challenges in implementing an exercise intervention within residential psychiatric care: A mixed methods study. Mental health and physical activity*, 12, 141–146. <https://doi.org/10.1016/j.mhpa.2017.04.004>
2. Gerber, M., Schilling, T., Ludyga, S., Faude, O., Schmidt-Trucksäss, A., Cody, R., Straus, D., Schneiders, A., & Brupbacher, G. (2025). *Validity and feasibility of four standardized aerobic fitness tests in patients with depression: A cross-sectional study. Journal of psychiatric research*, 181, 116–125. <https://doi.org/10.1016/j.jpsychires.2024.11.019>
3. Heggelund, J., Vancampfort, D., Tacchi, M. J., Morken, G., & Scott, J. (2020). *Is there an association between cardiorespiratory fitness and stage of illness in psychotic disorders? A systematic review and meta-analysis. Acta psychiatrica Scandinavica*, 141(3), 190–205. <https://doi.org/10.1111/acps.13119>
4. Hjorthøj, C., Stürup, A. E., McGrath, J. J., & Nordentoft, M. (2017). *Years of potential life lost and life expectancy in schizophrenia: a systematic review and meta-analysis. The lancet. Psychiatry*, 4(4), 295–301. [https://doi.org/10.1016/S2215-0366\(17\)30078-0](https://doi.org/10.1016/S2215-0366(17)30078-0)
5. Perez-Cruzado, D., Cuesta-Vargas, A., Vera-Garcia, E., & Mayoral-Cleries, F. (2018). *Medication and physical activity and physical fitness in severe mental illness. Psychiatry research*, 267, 19–24. <https://doi.org/10.1016/j.psychres.2018.05.055>
6. Rosenberg, M. (1965). *Society and the adolescent self-image. Princeton, NJ: Princeton University Press*
7. Scheewe, T. W., Jörg, F., Takken, T., Deenik, J., Vancampfort, D., Backx, F. J. G., & Cahn, W. (2019). *Low Physical Activity and Cardiorespiratory Fitness in People With Schizophrenia: A Comparison With Matched Healthy Controls and Associations With Mental and Physical Health. Frontiers in psychiatry*, 10, 87. <https://doi.org/10.3389/fpsy.2019.00087>
8. Shannon, A., McGuire, D., Brown, E., & O'Donoghue, B. (2020). *A systematic review of the effectiveness of group-based exercise interventions for individuals with first episode psychosis. Psychiatry research*, 293, 113402. <https://doi.org/10.1016/j.psychres.2020.113402>
9. Vancampfort, D., Firth, J., Schuch, F. B., Rosenbaum, S., Mugisha, J., Hallgren, M., Probst, M., Ward, P. B., Gaughran, F., De Hert, M., Carvalho, A. F., & Stubbs, B. (2017). *Sedentary behavior and physical activity levels in people with schizophrenia, bipolar disorder and*

- major depressive disorder: a global systematic review and meta-analysis. *World psychiatry : official journal of the World Psychiatric Association (WPA)*, 16(3), 308–315. <https://doi.org/10.1002/wps.20458>
10. Vancampfort, D., Hagemann, N., Wyckaert, S., Rosenbaum, S., Stubbs, B., Firth, J., Schuch, F. B., Probst, M., & Sienaert, P. (2017). Higher cardio-respiratory fitness is associated with increased mental and physical quality of life in people with bipolar disorder: A controlled pilot study. *Psychiatry research*, 256, 219–224. <https://doi.org/10.1016/j.psychres.2017.06.066>
 11. Vancampfort, D., Vandael, H., Hallgren, M., Probst, M., Hagemann, N., Bouckaert, F., & Van Damme, T. (2019). Physical fitness and physical activity levels in people with alcohol use disorder versus matched healthy controls: A pilot study. *Alcohol (Fayetteville, N.Y.)*, 76, 73–79. <https://doi.org/10.1016/j.alcohol.2018.07.014>
 12. Vancampfort, D., Kimbowa, S., Ward, P. B., & Mugisha, J. (2021). Physical activity, physical fitness and quality of life in outpatients with a psychotic disorder versus healthy matched controls in a low-income country. *Schizophrenia research*, 229, 1–2. <https://doi.org/10.1016/j.schres.2021.01.019>
 13. Vancampfort, D., Kimbowa, S., Hallgren, M., & Mugisha, J. (2022). Physical activity and physical fitness in community patients with alcohol use disorders versus matched healthy controls: cross-sectional data from Uganda. *The Pan African medical journal*, 41, 190. <https://doi.org/10.11604/pamj.2022.41.190.30673>

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