FEDERAL RESEARCH PROGRAMME ON DRUGS

SUMMARY

OMER-BE

Outcome Measurement and Evaluation as a Routine practice in alcohol and other drug services in Belgium (BE)

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Contract - DR/90/OMER-BE

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Published in 2025 by the Belgian Science Policy Office (BELSPO) WTCIII Simon Bolivarlaan 30 Boulevard Simon Bolivar 30 B-1000 Brussels Belgium Tel: +32 (0)2 238 34 11 - Fax: +32 (0)2 230 59 12 http://www.belspo.be http://www.belspo.be/drugs

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Migchels, C., Zerrouk, A., Antoine, J., Fernandez K., De Ruysscher C., Matthys, F., Gremaux L, van den Brink, W., Crunelle, C.L., & Vanderplasschen W. Outcome Measurement and Evaluation as a Routine practice in alcohol and other drug services in Belgium. Summary. Brussels : Belgian Science Policy Office 2025 – 18 p. (Federal Research Programme on Drugs)

I. INTRODUCTION

Alcohol and other substance use disorders (SUDs) are linked to a range of adverse psychological, physical, and social consequences [1]. The chronic, relapsing nature of SUD and related economic, judicial, housing and relational problems impact individuals, but also families, neighbourhoods and whole communities [2-5]. SUDs have a significant and growing impact on global morbidity and mortality [6-8]. Worldwide, harmful alcohol use causes 3 million deaths annually, representing 5.3% of all deaths, and accounts for 5.1% of the global burden of disease [9]. Recent findings from the annual National Survey on Drug Use and Health (NSDUH) showed that 10.5% of the US population aged 12 or older met DSM-5 criteria for having an alcohol use disorder in the past year, and 8.5% met the criteria for a drug use disorder [10].

The American Society of Addiction Medicine [11] considers addiction, the most severe form of SUD [12], as "a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviours that become compulsive and often continue despite harmful consequences". Besides prevention and law enforcement, treatment and harm reduction are regarded valuable public health measures to decrease the impact of substance use and related problems [1, 13, 14]. The efficacy and efficiency of substance use and addiction treatment is often debated due to high relapse and drop-out rates and small to moderate effect sizes of most interventions and treatment modalities [15-17]. Yet, numerous studies have established a clear association between the time spent in treatment (retention) and successful outcomes, as well as the importance of continuing care and support for maintaining and consolidating change [18, 19]. Data on this subject are largely missing in Belgium.

II. BACKGROUND OF THE STUDY

The OMER-BE study started from the above observations, (positive) findings from treatment cohort studies in the US and Europe comparing outcomes across treatment modalities and the lack of similar research in Belgium. Although some initiatives have been taken to systematically implement monitoring of treatment outcome and experience indicators in Flanders/Belgium (e.g. patient surveys, Flemish indicator project, BELRAI-registration), these efforts mostly concern single indicators and/or are limited to some health services and deemed not specific enough for AOD services. The recommendation by the Belgian Health Care Knowledge Centre [20] to crank up the use of patient-reported outcome and experience measures in patient care and policy was a further impetus to set up this study. *Patient-Reported Outcome Measures* (PROMs) refer to information on treatment outcomes as perceived by service users, including information about symptoms, quality of life, physical functioning, and psychological well-being. *Patient-Reported Experience Measures* (PREMs) focus on service users' experiences of health care services and concern practical aspects of care, such as accessibility, information and decision making, and continuity of care.

The use of patient-reported outcomes and experiences as part of routine outcome monitoring (ROM) practices is relatively new and brings in a service-user perspective, which may differ substantially from the service provider or proxy perspectives. In Belgium, the monitoring of treatment progress at macro-level is non-existent and besides a few initiatives at service and institutional level, monitoring of treatment outcomes is not mandatory nor common in Belgium. In Flanders, a number of quality/outcome indicators were collected voluntarily during the <u>VIP² project</u>, while the <u>BELRAI-tool</u>

has been introduced as a standardized assessment tool across various social welfare and health care services, including a specific module for AOD services. Yet, an outcome/monitoring version of this tool is not available.

Our systematic review of the literature [21] showed that, although the implementation of PROMs and PREMs in SUD treatment services is increasing, its application is still in its infancy and seriously fragmented [22-27]. These patient-reported measures have the potential to improve the quality and effectiveness of SUD treatment services, but it is unclear which measures are best used in clinical practice and what are specific challenges when implementing PROMs and PREMs, including hindering and facilitating factors. Based on a review of 23 international studies, it appeared that the use of PROMs is relatively new and disperse. Its application is mainly limited to research projects and not common in clinical practice. The use of PREMs is even more scarce, also due to a lack of instruments. Substantial differences can be observed in the way PROMs and PREMs are administered, the way in which they have been developed, and how and when they are collected in clinical practice. Additional guidance is needed for clinicians and researchers to select valid, meaningful, and comparable patientreported tools, as we did in this study, and to offer valuable insights on how to overcome barriers in using these measures in routine clinical care [21]. Consequently, we used standardized and comparable instruments and implementation methods based on the ICHOM SSA tool to better understand and benefit from the impact of PROM and PREM data on treatment quality and treatment outcomes. New and unvalidated instruments were translated and adapted to the Belgian context and validated in Dutch (SURE-NL and PREMAT-NL) [28, 29].

As opposed to earlier treatment outcome studies, the OMER-BE study started from a recovery perspective instead of an acute care approach. We monitored study participants regularly (with 45 and 90 day intervals) over a 6-month period after starting a new treatment episode [30]. Typically, addiction treatment has been evaluated using an acute care approach, evaluating individuals' functioning after treatment and assuming that these outcomes (will) last after treatment. The emerging literature around addiction recovery shows that recovery often takes time and that people require various treatment episodes before they can eventually be considered in 'stable recovery' (>5 years) [31-33]. Although we used a residential treatment episode as starting point for measuring patient-reported outcomes and experiences in this study, we extended the traditional scope of outcome studies by assessing various life domains related to health, well-being and citizenship (beyond substance use) and a dimensional rather than a dichotomous (abstinence/relapse) approach to recovery. Recovery was measured at various points in time (45, 90 and 180 days after initial assessment) to observe how individuals evolve after initial treatment participation and which covariates affect service users' outcomes and experiences [30].

In 2015, a shift to recovery-oriented care and support was introduced in substance use treatment in Flanders [34], which followed similar evolutions in general mental health care that were initiated in 2012 with the title 107 reform [35]. The recovery model includes an important shift away from a purely medical model of treatment to a personal recovery approach viewing addiction recovery as an individual, non-linear process requiring individualized support that might change over time, a continuing care perspective and attention for individuals' well-being, quality of life and social connections [32].

III. BASELINE CHARACTERISTICS OF THE STUDY SAMPLE

In total, 189 individuals participated in the OMER-BE study, 81 treated in a SUD ward in a psychiatric hospital, 80 in a drug-free TC and 28 participants (14.8%) were recruited in outpatient services. The average age of study participants was 35.5 years at baseline and the majority was male (82.5%), completed secondary education (60.3%) and lived alone (47.6%). Most participants (81%) had undergone previous treatment for SUDs. The most frequently reported problem substances were alcohol (53.8%), cocaine (43.5%) and cannabis (34.4%), also indicating frequent presence of polysubstance use [30].

Initial comparisons were made between the three treatment modalities. When considering sociodemographic and clinical characteristics, no significant differences were found in terms of age, sex, living situation and country of birth. However, significant differences were observed regarding education level, treatment history, OAT involvement and primary substances reported. Post hoc analyses revealed that participants in the PC group had the highest level of education, followed by those in the outpatient group and finally the individuals from the TC group. On average, 82.7% of participants from the PC and 85% of the participants TC group had a history of SUD treatment, with no statistically significant difference between the two groups. A significantly higher percentage of participants in the outpatient group (46.4%) was engaged in some form of OAT. In terms of substance use, alcohol was more frequently reported as the primary substance in the PC group. In contrast, opioids were most frequently reported in the outpatient group. Amphetamine, cocaine and GHB were significantly more reported in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group. A significantly higher percentage of participants in the TC group.

While background (case-mix) variables differed between the three treatment modalities in terms of education level, treatment history and primary substance, no differences were found regarding cooccurring mental health problems, except for ADHD being more prevalent among persons in therapeutic communities [30]. PROM scores at baseline were similar across treatment modalities, except for the SURE-NL scores which were significantly higher among participants in residential AOD facilities as compared with those in outpatient services, in particular regarding 'substance use', 'selfcare' and 'outlook on life'. Attrition analyses showed substantial drop-out rates at initial and subsequent follow-up assessments (36.5%), in particular in outpatient services. Comparisons between participants who completed the 45-day follow-up and those who did not revealed several significant differences. Those retained in the study were significantly older, had a higher education level, were more likely to live alone, and were more likely to have parents (mother) being born in Belgium and to report alcohol as primary problem substance. Additionally, persons participating in follow-up assessments scored higher on 'material resources' (SURE-NL), including questions about stable housing, steady income, and effective financial management. Our findings are in line with studies that suggest that factors such as lower education level, younger age, unemployment, and financial instability are associated with higher attrition at follow-up assessments [36,37]. Moreover, as we opted for digital follow-up assessments (through mobile phones, computers or tablets) lower participation in persons with low socioeconomic status may be attributed to limited digital skills and individuals' inability to use electronic devices [21, 38, 39].

IV. FINDINGS AT FOLLOW-UP MEASUREMENTS

Longitudinal analyses of PROMs in residential AOD services showed high initial recovery scores as measured with the SURE-NL, a recently developed recovery measure [28, 40], leaving little room for further improvements. Moreover, the extent of recovery strengths was related to the time when the questionnaire was administered. Since participants stayed in a safe and closed environment, they scored high on the 'substance use' scale of the SURE-NL and these scores were higher when individuals had been in treatment for more days. Using linear mixed modeling, the evolution of PROM scores at the various follow-up points was analyzed, as well as the role of time, treatment modality, age and gender. In general, recovery scores remained high over the 6-month follow-up period, indicating that most participants maintained the initially high scores on various recovery indicators. No or few differences were observed between participants from PC and TCs, except that TC participants who had higher initial scores for 'self care' scored lower on this measure over time and also had lower total SURE-NL scores at the follow-up moments compared to the PC group. These significant differences may be attributed to greater problem severity and lower educational attainment among persons in TCs and to the lack of specificity and sensitivity of the SURE-NL scale. This measure uses a one week time window, while participants could be – for pragmatic reasons – assessed at baseline during the first 21 days of treatment, leaving ample space for overlooking inter- and intrapersonal differences. Importantly, the PC and TC group were not matched at the baseline assessment, nor did we use a controlled study design, which does not allow any inference about differences between treatment modalities (PC vs. TC) nor causal attributions related to the treatment modality where individuals began treatment.

Significant time effects were found regarding quality of life, as measured with the WHOQoL-BREF, indicating substantial improvements in 'perceived QoL' 'perceived health' and 'environment' among both groups at the 6-month follow-up moments. Yet, and not surprisingly, these time effects for physical health levelled off at the 90-day follow-up moment, suggesting a plateau effect in recovery. A similar trend was observed for psychological health scores, which improved significantly during the first 90 days and then levelled off. 'Psychological health' was significantly lower in female participants and persons in TCs, suggesting more severe and enduring psychological problems in this group. Similarly, the PROMIS-GH-10 demonstrated significant improvements in the study sample over time on physical and mental health among both groups, with a plateau effect for mental health. It turned out that 'age' had a negative impact on participants' perception of their physical health.

Overall, PREMAT scores [29, 41] at the 45-day follow-up were high, approaching mean scores of 4 (out of 5), with the highest scores observed for the items 'felt welcome', 'was held responsible for my behavior', and 'know that recovery is up to me', indicating the importance of a welcoming atmosphere but also an emphasis on personal responsibility and clarity during the first weeks of treatment. Items that were scored lowest by study participants were 'having enough privacy', 'enough one-to-one sessions' and 'been linked up with other services', suggesting that service users expect more privacy and individuals sessions and being offered support alternatives outside the treatment facility where they started. Not surprisingly, persons who dropped out from residential treatment early scored significantly lower on the PREMAT-NL and had significantly lower scores on the items 'know what the rules are', 'rules make sense', 'receiving enough space by others' and 'getting information where else they can go for help'. The latter item differences suggest that providing information about the rules and why these rules are installed, as well as psycho-education sessions and providing information on

other treatment and support options may make a difference between staying in treatment and dropping out. Also, getting enough (mental) space from others was considered more important by those who left treatment early.

Based on the lived experiences of a subsample of study participants (n=21) from the three treatment settings (outpatient treatment, residential psychiatric centres and therapeutic communities), we further explored individuals' treatment and recovery experiences over the 6 month study period during in-depth interviews. Using thematic analysis, we found that all participants underscored the importance of a comprehensive, patient-centered approach in SUD treatment that addresses the clinical, personal and social dimensions of recovery. Four themes appeared to be very central in the answers from respondents, irrespective of the treatment setting: (1) feeling connected, valued and respected; (2) understanding and managing substance use; (3) finding balance in life; and (4) directing your own care pathway. A sense of recognition and acceptance by both peers and service providers enhanced individuals' self-confidence and self-esteem, but also the ability to (re-)connect with others in treatment and the community (e.g. family, colleagues). Being in a safe environment, without access to substances and with professional support, enabled participants to become abstinent and to focus on future goals and perspectives. Most participants also expressed the need for a "stable, normal life", including decent housing, work, good health and satisfying activities. Finally, continued access to care and support was emphasized and deemed necessary for maintaining recovery.

V. FEASIBILITY OF ROUTINE IMPLEMENTATION OF PROMS and PREMS

The feasibility study on the routine collection of PROMs and PREMs in a selected number of services showed that these measures are flexible tools that can serve a variety of purposes at different organizational levels and it is essential that the objectives of the data-collection are clearly defined. A bottom-up approach, taking into account common concerns and daily realities, and raising awareness about the usefulness and potential applications of PROMs and PREMs are crucial to promote implementation. Available good practices and implementation guidance can stimulate other organisations to consider the implementation of PROMs and PREMs. Practical, methodological and financial obstacles need to be addressed, like secure data collection infrastructure, implementation protocols, appropriate data-collection methods according to services' and service users' needs and routines and monitoring service users at risk of leaving the facility. To increase implementation willingness, it was suggested to introduce time-limited data collection periods and targeted PROM or PREM assessments rather than routine/daily assessment of a comprehensive set of PROMs. The PREMAT tool aligned best with clinical expectations and realities and was well received by professionals for its compactness, comprehensibility and completeness. In general, an important concern related to the generalizability of the data is how to include (more) service users who leave treatment prematurely as they are usually not included when applying convenience sampling. It was further emphasized that the use of PROMs and PREMs is just one element to improve quality of care and needs to be carefully monitored and adequately supported at all organisational levels [42-44]. Also, since the use of PROMs and PREMs is relatively new and since expectations and experiences differ between services, it is recommended to collaborate between services and organisations on this topic and exchange knowledge and experiences to adhere to a bottom-up approach in which organisations and service providers empower each other in implementing PROMs and PREMs.

VI. CONCLUDING OBSERVATIONS

In conclusion, the OMER-BE study filled an important gap in the AOD treatment sector in Belgium, since no comprehensive, cross-sectoral outcome study had been performed until recently. The study adressed the KCE recommendation to introduce the use of PROMs and PREMs in these type of services [20] and linked with recent recommendations and practices regarding routine outcome monitoring to improve treatment outcomes and adherence, as implemented, for example, in addiction treatment centres in the Netherlands [45]. Our findings illustrate that implementation of PROMs and PREMs is feasible, but requires substantial logistic support and monitoring (in this case 2.5 fulltime researchers and a dedicated data-collection system) and clear objectives, but may be hampered by practical and organisational concerns, as illustrated by limited participation of services in the French-speaking part of Belgium, slow recruitment and a disproportionate number of study participants in outpatient services and high attrition rates. Longitudinal findings demonstrate the effectiveness of residential treatment to initiate and maintain recovery and to contribute to the quality of life and physical and mental health of study participants. Patient-reported experiences are generally positive among those retained in treatment and in the study, but several questions remain around those not included or retained in the study. Qualitative interview data illustrate the role treatment can play in individuals' recovery trajectories, in particular in reconnecting, finding stability, managing substance use and opening realistic future perspectives. Finally, the feasibility study of routine implementation of PROMs and PREMs identified several barriers towards its implementation in daily clinical practice and various prerequisites and facilitators for regular use of these patient-reported measures to improve quality of care.

VII. RECOMMENDATIONS STEMMING FROM THE OMER-BE STUDY

7.1 General recommendations

The implementation of PROMs and PREMs closely aligns with establishing recovery-oriented systems of care (ROSC) [46]. As highlighted by Day et al. [47], recovery is a long-term, multidimensional process that extends beyond single treatment episodes, requiring ongoing support structures that facilitate personal growth, social reintegration, and building and accessing recovery capital. A core principle of recovery-oriented support is the need for continuity of care. In that sense, international best practices show how ROSCs should extend beyond institutional boundaries and actively integrate peer-based recovery support services such as AA, employment and housing programs, and long-term recovery monitoring [47]. From that perspective, outcome monitoring should not only focus on clinical parameters (e.g. PROMs), but also assess broader domains such as housing stability, financial security, employment, and social participation as crucial determinants of sustained recovery [35]. Moreover, a proactive approach to monitoring individuals at risk of drop-out, particularly in outpatient settings, is essential to reduce early drop-out or disengagement and adjust interventions timely. Yet, collaboration between specialized addiction services and general support systems remains limited in Belgium [48, 49]. Without a comprehensive and person-centered approach to recovery (cf. ROSC), the implementation of PROMs and PREMs risks becoming an isolated administrative exercise rather than a meaningful tool for improving quality of care and empowering individuals in their recovery journey.

Moreover, the use of subjective indicators like PROMs and PREMs is part of a broader shift in the scientific and healthcare landscape, where scientific knowledge, professional expertise, and lived experience are increasingly recognized as equally valuable pillars of evidence. While traditional care

models have primarily relied on clinical and academic research, there is growing international recognition that the insights and experiences of service users are essential for more effective and person-centered support. The application of PROMs and PREMs aligns seamlessly with this shift, as they place the voices of service users at the center of care evaluation and improvement. This goes beyond merely collecting outcomes and experiences—it actively shapes support practices and informs policy development. In this sense, the implementation of PROMs and PREMs is not just a methodological innovation, but can contribute to a fundamental reorientation of care, where the expertise of individuals with lived experience is no longer considered supplementary but is recognized as an essential component of high-quality, recovery-oriented support [35, 50].

At clinical level, the OMER-BE study demonstrates how PROMs and PREMs hold significant potential for enhancing treatment practices, adapting elements based on service user experiences and stimulating shared decision-making. In routine recovery-supportive practices, PROMs and/or PREMs should not merely serve as data collection instruments but as dynamic tools that support person-centered care planning. Their value lies in allowing service providers to track treatment and recovery progress, facilitating structured conversations about personal recovery goals and next treatment steps. PROMs and PREMs can play a valuable role at key moments in the treatment and recovery process, such as intake assessments and transition points between treatment phases or types of support.

The ICHOM tool has proven to offer strong foundations for standardized outcome assessments, while the PREMAT-NL provides unique insights into treatment experiences. However, some modifications are needed to further enhance the practical applicability of these instruments. Since the PREMAT [41] was originally designed for residential settings, adjustments are necessary to ensure its relevance across different treatment modalities. PROMs should, in line with findings from recovery research, include measures that also focus on having meaningful activities and individuals' social integration/loneliness. A particular challenge identified in the OMER-BE study concerned the application of PROMs and PREMs in outpatient settings, which require more flexible, non-labor intensive approaches. A shortened version of the PREMAT-NL [29] —with fewer than 30 items—would make routine implementation more feasible, particularly in outpatient care. In addition, several practical considerations must be addressed to ensure accessibility and reliability of data collection. The digital divide presents a barrier for some service users, requiring alternative formats to ensure equal access. At the same time, digital solutions such as mobile-friendly surveys and remote data collection, should be leveraged to reach service users who engage less frequently with treatment services. In terms of timing of questionnaire administration, our study points to the importance of assessing outcomes at moments that align with service users' recovery trajectories. Inconsistencies in the time frames used across different questionnaires should be harmonized to improve the reliability and validity of longitudinal outcome monitoring. Extending the baseline assessment window beyond the applied three-week period and narrowing the focus of PROM assessments in outpatient settings may help to mitigate the low participation rates in these centres, as service providers prefer to use the first contacts/meetings with service users to build up a relationship of trust which is often deemed incompatible with the use of (a comprehensive set of) standardized tools and instruments.

From an international perspective, alcohol and drug services in Belgium may – despite a historical backlog and lack of a monitoring culture – benefit from aligning outcome measurement practices with global initiatives such as the ICHOM Standard Set for Addictions [24]. The adoption of internationally

validated tools may not only enhance the robustness of data collection, but also facilitate crosscountry comparisons that can inform better quality of services and and higher participation and retention rates in AOD treatment. Collaborative studies with countries that have more established PROM/PREM measurement systems—such as the Netherlands, the United Kingdom, and Australia could provide valuable insights into optimizing implementation strategies and practices. The OMER-BE study further suggests that even time-limited routine outcome/experience measurements, when properly implemented, are a promising approach to improve the quality of AOD services and develop more person-centred recovery support.

Finally, the implementation of PROMs and PREMs needs to be framed within a broader culture of continuous learning and quality improvement, if we want these tools to fulfill their intended role [24]. Rather than being considered as administrative/governmental requirements, PROMs and PREMs should be approached as useful instruments for meaningful engagement between service providers and service users. Establishing a coordinated national framework for routine monitoring, integrating PROMs and PREMs into existing data systems, and ensuring that data collection is aligned with the realities of clinical practice are essential steps towards embedding these measures into the fabric and daily routines of AOD services. Ultimately, the OMER-BE study provides convincing evidence that systematic outcome measurement can support recovery, empower service users, drive improvements in care delivery and inform evidence-based policy making. To realize recovery-oriented systems of care in Belgium, better matching and integration of recovery support services is needed (including peer-based and informal support, but also recovery housing and employment/vocational support) and a coordinated, cross-sectoral strategy that integrates person-centered, knowledge-informed, and internationally aligned approaches for monitoring individuals' recovery progress.

For promoting the implementation of PROM and PREM assessment in AOD (and other) treatment services in Belgium, we have formulated several policy and practice recommendations at macro-, meso- and micro-level based on the OMER-BE study.

7.2. Macro-level recommendations (situated at the level of national and regional policies)

1. Allocate dedicated resources for PROM and PREM implementation

The OMER-BE study highlighted that implementing PROMs and PREMs in AOD treatment is a laborintensive and resource-demanding process. To ensure the successful and sustainable integration of these tools, dedicated funding must be allocated to support essential components such as digital infrastructure and the development of standardized assessment protocols. For instance, investing in the necessary infrastructure to integrate PROMs and PREMs into existing systems such as the Treatment Demand Indicator (TDI) could ensure that outcome measurement becomes a routine part of care rather than an added administrative burden. Additionally, continuous professional development and training programs should be established to equip staff with the necessary skills to administer, interpret, and apply PROMs and PREMs effectively in clinical practice. Without adequate resources, PROM and PREM implementation risks being inconsistent, which might affect the reliability of outcome data and limit its potential to drive service improvements.

2. Develop tailored infrastructure for seamless data collection

A user-friendly and adaptable system for administering and storing PROM and PREM data needs to be developed to reduce the burden for both staff and service users. The OMER-BE study highlighted the dual role of technology: while digital tools can simplify implementation and improve data accuracy, they can also present challenges, such as usability concerns, leading some providers and users to prefer paper-based methods. Addressing these issues requires further refinement of digital infrastructure to balance usability with functionality. Digital solutions should be designed to integrate seamlessly with existing (organization-specific) systems to streamline workflows, minimize duplication and enhance data management efficiency. It must also offer secure storage, automated analysis, and real-time feedback mechanisms to support clinical decision-making. Additionally, strategies should be in place to bridge the digital gap, ensuring that technological solutions are inclusive and adaptable to the specific culture and operational realities of different treatment services. This includes providing alternative formats, such as paper-based versions, for individuals with limited digital skills or those who prefer non-digital options. By prioritizing user-friendliness and practicality, such infrastructure can facilitate routine outcome measurement without adding unnecessary complexity to service delivery.

3. Establish a national framework for the (routine) implementation of PROMs and PREMs

A comprehensive national policy framework should be developed to integrate the routine use of PROMs and PREMs into AOD treatment services. This framework must explicitly define its primary purpose: to enhance the quality of care by fostering a deeper understanding of service users' needs and evaluating the real-world impact of treatment. By embedding PROMs and PREMs into routine practice, this framework should serve not merely as a technical tool but as a driver of patientcentered, effective, and equitable care. A key objective should be to enhance the transparency and comparability of outcome data while maintaining a strong focus on improving service quality. To achieve this objective, this framework should balance standardization with flexibility, ensuring that PROMs and PREMs are both methodologically rigorous and practically applicable across diverse treatment settings. Furthermore, the framework should be designed to integrate seamlessly into existing routine practices, minimizing administrative burden on service providers. In that respect, based on the findings of the OMER-BE study, an implementation guide for the use of patient-reported measures in AOD services in Belgium needs to be developed, as well as providing training options and establishing self-sustaining learning networks of professionals. By embedding PROMs and PREMs into daily clinical workflows, a national framework can foster a culture of continuous quality improvement while equipping policymakers with robust data to enhance the effectiveness and accessibility of AOD treatment services [49].

7.3. Meso-level recommendations (situated at the level of organizations and services)

1. Build capacity for routine use of PROMs and PREMs among staff

The effective implementation of PROMs and PREMs in AOD treatment services relies on the skills, engagement, and support of both frontline workers and managers. The OMER-BE identified varying levels of motivation, confidence, and familiarity with these tools, highlighting the need for targeted capacity-building efforts. To address these gaps and to foster trust and cooperation among service providers, training programs should focus on the practical application of PROMs and PREMs, their role in improving care quality, and strategies for integrating these tools into daily workflows. Providing ongoing practical support will be essential to ensure that staff feel confident and equipped to use

these tools effectively. Fostering active participation of both service providers and service users in the development, adaptation, and implementation of PROMs and PREMs is essential beyond training and practical guidance. Ensuring that these tools are tailored to the realities of different treatment settings can enhance its practical relevance and increase staff involvement. Additionally, establishing a learning network among services and practitioners that are using these tools can facilitate knowledge exchange and problem-solving and stimulate continuous improvement and further advances.

2. Use PROM and PREM data for continuous quality improvement and person-centred care

Data obtained from PROM and PREM assessments should be actively leveraged to enhance the quality of care, support personalized treatment approaches, and strengthen accountability in AOD services. By systematically analyzing PROM and PREM data, treatment providers can monitor care quality, adjust interventions based on patient-reported needs and ensure that services act responsibly and evidence-driven. The OMER-BE study highlighted the potential of these tools to identify emerging trends, assess treatment effectiveness, and guide individualized and person-centred care planning. To fully realize these benefits, organizations should establish regular review processes that integrate outcome data into clinical decision-making and quality improvement initiatives. Embedding PROMs and PREMs into routine quality improvement efforts will not only enhance service effectiveness, but can also reinforce a culture of continuous learning and adaptation within AOD treatment settings.

3. Enhance participant recruitment and retention strategies

To ensure the validity and representativeness of findings, future efforts to implement routine outcome measurement of PROMs and PREMs should adopt tailored strategies to enhance participant recruitment and retention, especially in outpatient settings. The OMER-BE study identified significant challenges, including long waiting lists, low turnover rates, and infrequent contacts between service users and providers in outpatient facilities, which limited study participation and data collection. To address these barriers, recruitment timelines should be made more flexible, such as extending the baseline data collection window beyond three weeks, to accommodate the realities of outpatient care. Additionally, alternative engagement methods, including secure digital platforms, should be explored to reduce reliance on in-person interactions and facilitate smoother data collection. Leveraging online tools for remote survey completion, appointment reminders, and follow-ups can help maintain service user involvement while minimizing disruptions of their treatment schedules.

4. Standardize outcome measurement tools across services

Organizations should implement validated tools to ensure data quality and consistency in measuring service user outcomes and experiences across AOD services. The OMER-BE study demonstrated the feasibility and utility of an adapted tool based on the ICHOM Standard Set [24] and the PREMAT [41], confirming its value for the routine use in outcome measurement. However, while standardization is essential for enabling comparability across settings, the study also highlighted the need for flexibility and topical assessment. Outcome measurement tools must allow for the incorporation of additional assessment instruments or service-specific elements to ensure their relevance in different contexts. By adopting a structured, yet adaptable toolkit organizations can optimize the implementation of PROMs and PREMs in such a way that data collection is both reliable and useful for service improvement. This toolkit should also be integrated into a broader, facility-wide quality improvement process that engages all staff members and extends beyond mere data collection.

7.4. Micro-level recommendations (situated at the level of clinical practice and interactions between service providers and service users)

1. Integrate PROM and PREM assessments to enhance clinical practice and continuity of care

Embedding PROMs and PREMs into routine care at key moments, such as intake assessments and transitions in the treatment process, provides clinicians with real-time insights into service user progress, enabling them to tailor treatment and address emerging needs effectively. This regular use of outcome measures aligns with patient-centered care principles and could support individuals' recovery process. Moreover, PROM and PREM data may play a critical role in ensuring continuity of care by identifying service users at risk of dropout or relapse. By linking outcome data to treatment transitions—such as the shift from residential to outpatient care—clinicians can anticipate potential challenges and offer timely, targeted interventions. This integrated approach ensures that service users receive consistent, effective support throughout their recovery journey, fostering long-term engagement and improved outcomes.

2. Foster service user agency and shared decision-making

The use of PROMs and PREMs offers a powerful opportunity to empower service users by involving them in the (co-)creation of their treatment trajectories. These tools provide a structured way to integrate service user feedback into care planning and progress evaluation, fostering a sense of ownership and motivating service users to remain actively engaged in their recovery journey. This aligns closely with the principles of recovery-supportive practiced, emphasizing service user agency, person-centered care, and shared decision-making. Such approach not only enhances the overall treatment experience, but also strengthens the foundations for sustained recovery and long-term well-being [47].

3. Adapt tools to ensure accessibility for all service users

The OMER-BE study underscores the need for PROMs and PREMs to be accessible to all service users, regardless of language, literacy, and cultural background. This requires the translation of tools into French and Dutch and simplifying their design to accommodate varying levels of health literacy. By ensuring inclusivity, service providers can obtain more accurate and representative data.

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