

# Service User Perspectives for Dignity in Mental Healthcare: A Mathematical Approach

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**Abstract—**Concept of Dignity: From service users' perspectives, dignity in mental healthcare incorporates respect for personhood beyond diagnostic labels, autonomy in decision-making, protection of privacy and confidentiality, recognition of lived experience, and equitable treatment irrespective of background or socioeconomic status. Significance of Dignity: The preservation of dignity is fundamental to therapeutic engagement, as respect and validation foster trust and strengthen the therapeutic alliance. Dignity also supports identity, self-worth, and empowerment, which are integral to recovery processes. Furthermore, the protection of dignity contributes to the reduction of internalised and societal stigma associated with mental illness. Barriers to Dignity: Commonly reported barriers include entrenched power asymmetries between professionals and service users, coercive practices such as involuntary admission and restraint without sufficient communication, depersonalisation within institutional contexts, limited opportunities for choice in care and support, and stigmatizing attitudes among staff that negatively affect care quality. Strategies to Promote Dignity: Service users recommend strategies such as shared decision-making in care planning, empathetic listening, recovery-oriented approaches emphasizing strengths and aspirations, targeted staff training on rights and cultural competence, and the inclusion of peer support roles to integrate lived experience into service delivery. Research and Policy Implications: Qualitative methodologies, including interviews and focus groups, provide nuanced insights into how service users conceptualise dignity. Rights-based frameworks, notably the UN Convention on the Rights of Persons with Disabilities, establish normative standards for ensuring

dignity in mental healthcare. Policy frameworks increasingly call for person-centred, trauma-informed, and recovery-oriented models that align with these dignity-based principles. What dignity means: For service users, dignity means being treated as a person first, not a diagnosis. It includes having a say in treatment decisions, ensuring privacy, valuing lived experience, and receiving fair treatment regardless of background or condition. Why dignity matters: Respectful and dignified care strengthens trust between staff and service users, improving engagement with treatment. It also supports recovery by protecting self-esteem and identity. Upholding dignity further helps to challenge stigma, both internalised and external. Barriers to dignity: Service users often face challenges such as unequal power dynamics, coercive practices without explanation, depersonalisation (e.g., being identified by diagnosis or bed number), lack of choice in care and support, and stigma from staff that undermines care quality. How to promote dignity in practice: Involve service users in decisions about their care. Listen actively and show empathy. Focus on recovery by building on people's strengths and aspirations. Provide staff training on communication, cultural competence, and human rights. Employ peer workers with lived experience as part of the care team. Implications for services: Listening to service users through interviews and focus groups provides valuable insight into what dignity means in practice. Aligning services with rights-based and recovery-oriented frameworks, such as those set by the UN Convention on the Rights of Persons with Disabilities, ensures care is both ethical and effective.

**Index Terms**—Mathematical Dignity Model (MDM), Mental healthcare (MHC), Service users (SU), Peer work (PW), Knowledge co-creation (KC), Service user perspectives, Dignity in care (DC), Patient-centered care (PCC), Human rights in mental health (HRMH), Respect and autonomy (RA), Recovery-oriented practice (ROP), Lived experience (LE), Stigma reduction (SR), Ethical mental health practice (EMHP). **Subject classification:** Health Sciences: Mental Health, Psychiatry and Psychology, Public Health and Health Policy. Social Sciences: Sociology of Health and Illness, Social Work and Human Services, Human Rights and Ethics. Applied Mathematics: Mathematical Modelling in Healthcare, Quantitative Methods in Social Sciences, Biostatistics and Data Analytics. Interdisciplinary Studies: Health and Society, Patient-Centered Care Research, Service User Involvement Studies, Computational Social Science

## I. LITERATURE REVIEW AND INTRODUCTION

Dignity is widely recognized as a fundamental moral, ethical, and human rights principle in mental health care. Despite this recognition, service users across diverse cultural and healthcare contexts continue to report frequent violations of their dignity and associated human rights. These violations manifest in practices such as coercion, depersonalisation, and the neglect of individual autonomy, often leading to diminished trust, reduced therapeutic engagement, and poorer recovery outcomes. A significant challenge in addressing these issues is the absence of clear and operational definitions of dignity within mental healthcare practice and policy. While the concept of dignity is frequently invoked in professional and academic discourse, it is often framed from the perspective of service providers, policymakers, or legal frameworks, rather than from the standpoint of those directly experiencing mental health services. The lack of service user-driven definitions constrains the development of effective interventions, measurable indicators, and rights-based approaches to care. This review highlights the urgent need to reframe dignity not as an abstract principle but as a lived, relational, and co-constructed experience. Central to this process is the meaningful involvement of service users and peer workers in all stages of mental health service development design, delivery, and evaluation. Co-production ensures that services are responsive to the values, needs, and aspirations of those who use them, thereby operationalising dignity in practice.

Such approaches align with recovery-oriented and human rights-based frameworks, such as the United Nations Convention on the Rights of Persons with Disabilities (CRPD), which emphasize autonomy, participation, and respect for lived experience. In sum, advancing dignity in mental healthcare requires a paradigm shift: from top-down, provider-led models toward participatory, inclusive systems that recognize service users as equal partners in shaping the services that affect their lives. Embedding dignity through co-production not only strengthens therapeutic relationships and recovery outcomes but also contributes to the broader goal of reducing stigma, discrimination, and rights violations in mental health systems.

### Objective:

To explore the meaning of dignity in mental healthcare from the perspective of service users.

### Approach:

A narrative review of 17 peer-reviewed studies on service user perspectives, complemented by two original qualitative studies co-produced by the authors and the World Dignity Project.

### Data Sources:

Medline, APA PsycInfo, CINAHL, Embase, and Web of Science.

### Study Sample:

Study 1: 17 participants from 11 countries.

Study 2: 78 participants from 21 countries.

Participants provided positive and negative accounts of their experiences in mental healthcare.

### Dignity as a Moral and Ethical Concept:

- **Inherent and Inalienable:** Rooted in shared humanity and universally recognized.
- **Grounded in Human Rights:** Violations include discrimination and coercive practices.
- **Systemic Barriers:** Underfunding, workforce shortages, and weak policy enforcement hinder rights-based dignity in practice.

### Dignity as a Subjective Experience:

- **Dual Nature:** Both internal (self-respect) and external (respect from others).

- Dynamic Process: Shaped by illness, relationships, and social context.
- Threats: Stigma and power imbalances exacerbate risks to dignity.

#### The Challenge of Operationalization:

- Dignity is often vaguely defined in professional ethics.
- Critics argue it is an “ideal” lacking enforceable standards.
- This ambiguity highlights the need to refine and ground the concept empirically—through service user input.

## II. SERVICE USER-DEFINED DIMENSIONS OF DIGNITY

From service user narratives and reviewed literature, seven dimensions of dignity in mental healthcare were identified.

### 1. Relationships:

- Respect: The foundation of dignity, based on mutual recognition of humanity. Service users want to be valued, heard, and not judged. Disrespect and stigma undermine dignity.
  - Example: A nurse shaming a patient for self-harm scars was described as deeply demeaning.
- Communication: Respectful listening and dialogue affirm identity, foster safety, and support recovery. Information-sharing promotes shared decision-making.
  - Example: A UK service user described the dignity-affirming impact of being continuously listened to.
- Empathy: Human warmth and understanding are essential, particularly for vulnerable users such as those at risk of suicide. Empathy must remain present even during coercive interventions.
  - Example: A suicidal patient called empathetic care a “game changer” in recovery.

### 2. Person-Centered Care:

- Recognizing each service user as a unique individual is central to dignity.
- A diagnosis should not reduce a person to a label such as “mentally ill.” Objectification and

stigmatization leave people feeling invisible and unsafe.

- Example: A Swedish service user (Female, 18–34) recalled being treated as a “number,” dismissed as “crazy,” and left feeling unsafe.
- Empathy reinforces person-centered care by validating experiences and building trust.
  - Example: A Portuguese service user (Female, 18–34) described her first session, where her struggles were validated, as deeply empowering.

### 3. Autonomy:

- Dignity is closely linked to autonomy—the ability to make informed decisions and exercise control over care.
- Lack of choice leaves users feeling powerless; involvement enhances self-respect and recovery.
- Shared decision-making reduces power imbalances and treats users as equal partners.
  - Example: A Ugandan service user (Female, 18–34) felt motivated to continue treatment after being involved in decision-making.
- Even in inpatient settings, small choices (e.g., routines, clothing, personal belongings) help preserve dignity.
- Coercive practices such as restraint, seclusion, or sedation—though sometimes used—must be carefully justified, proportionate, and clearly communicated.

### 4. The Care Environment:

- Physical surroundings strongly influence dignity.
- Recovery-oriented environments should be clean, homelike, calming, and private, with access to natural light, greenery, food, and leisure activities.
- Overcrowded or chaotic environments undermine dignity and increase distress.
  - Example: A Ugandan service user (Male, 35–49) described being locked naked in a dark, bare seclusion room without water or bedding, calling it a profoundly undignified experience.

### 5. Privacy and Confidentiality:

- Protecting both physical and informational privacy is critical.
- Confidentiality safeguards against stigma and must include:

- Restricting access to personal health information,
- Obtaining consent before sharing with family or others,
- Avoiding unnecessary personal questioning.
- These principles also apply to digital mental health services, where protecting data and online consultation privacy is essential.

#### 6. Knowledge Co-Creation:

- Dignity extends to how mental health knowledge is generated.
- Service users should be equal partners in research, not merely subjects.
- Co-production affirms rights, advances social justice, and enhances intervention effectiveness.

#### 7. Peer Work:

- Peer work, where individuals with lived experience support others, upholds dignity through empathy, mutual respect, and inclusion.
- Enablers include fair pay, professional growth opportunities, and involvement in decision-making.
- While peer work is well established in high-income countries, low- and middle-income countries face barriers such as limited resources, stigma, and lack of recognition. Expanding peer work in LMICs is vital for equitable and culturally responsive care.

#### Key Insights:

- Dignity is a contextual, relational, and co-produced concept.
- It requires:
  - Genuine respect for service users as human beings,
  - Collaborative communication that centers their narratives,
  - Empathy that recognizes emotional and social needs.
- Traditional top-down approaches fail to capture the lived realities of dignity.

#### Recommendations:

- Embed service user perspectives and peer workers throughout mental healthcare design, delivery, and evaluation.

- Develop operational definitions of dignity informed by user experience.
- Translate abstract ideals into measurable practices that uphold dignity.
- Prioritize relational ethics, therapeutic alliances, and user agency.

#### Limitations:

This work is a narrative review, which, unlike systematic or scoping reviews, carries risk of bias due to selective inclusion. However, it offers value by integrating expert and lived experience perspectives into policy discourse. The two co-produced primary studies included were presented at peer-reviewed conferences but remain unpublished, which may introduce further interpretation bias.

### III. FRUITFUL AND FEASIBLE CONCLUSIONS

Dignity is a core moral and legal principle in mental healthcare, yet service users frequently experience violations through stigma, coercion, discrimination, and systemic neglect. Despite its prominence in professional ethics and human rights frameworks, dignity often remains vaguely defined and poorly operationalized in practice. This narrative review synthesized 17 peer-reviewed studies alongside two co-produced qualitative studies involving 95 participants from 32 countries. Findings highlight dignity as inherent rooted in shared humanity and subjective, shaped by self-respect, relationships, and context. Seven service user-defined dimensions of dignity were identified: respect, communication, empathy, person-centered care, autonomy, care environment, and privacy/confidentiality. Barriers such as underfunding, power imbalances, and biomedical dominance undermine these dimensions. Recommendations include embedding dignity-centered training for all health professionals, reducing coercive practices, expanding peer work with fair compensation, and prioritizing co-produced knowledge led by those with lived experience. Ultimately, dignity in mental healthcare is dynamic, relational, and co-produced; making it actionable requires centering user voices, strengthening autonomy, and fostering equitable partnerships in care and research.

Future Research Scope: Future research on dignity in mental healthcare should prioritize co-production and lived experience leadership to address gaps in knowledge and practice. Key directions include:

1. Education and Training Models – Develop and evaluate curricula that integrate service user perspectives into pre-service, in-service, and continuing professional development for both mental health and general healthcare providers.
2. Alternatives to Coercion – Investigate rights-based, non-coercive approaches to crisis management, including community-based interventions and supported decision-making models.
3. Peer Work Expansion – Examine strategies for scaling peer support across diverse cultural and economic contexts, with particular focus on sustainable implementation in low- and middle-income countries (LMICs).
4. Service User-Defined Metrics – Create and validate measurable indicators of dignity in mental healthcare, reflecting user-identified priorities such as respect, empathy, and autonomy.
5. Knowledge Co-Creation – Reframe research methodologies to ensure service users are equal partners, not subjects, in knowledge generation. Comparative studies can explore the impact of lived experience leadership on policy, service quality, and recovery outcomes.
6. Systems and Policy Research – Assess how policy reforms, funding models, and workforce structures enable or hinder dignity-centered care.

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#### CITATIONS AND REFERENCES

- [1] Brooks, C. (2015, April 28–30). Taxonomy of dignity in mental health. Proceedings of the International Mental Health Congress, Lille, France.
- [2] Brooks, C., & Ivbijaro, G. (2018). Mental health dignity and the voice of the service user Results of a global survey. Universal Health Mental Health for All Congress, Valletta: UHMH.
- [3] Greenhalgh, T., Thorne, S., & Malterud, K. (2018). Time to challenge the spurious hierarchy of systematic over narrative reviews? *European Journal of Clinical Investigation*, 48(e12931). <https://doi.org/10.1111/eci.12931>
- [4] Staniszevska, S., Mockford, C., Chadburn, G., Fenton, S. J., Bhui, K., Larkin, M., et al. (2019). Experiences of in-patient mental health services: Systematic review. *The British Journal of Psychiatry*, 214(6), 329–338. <https://doi.org/10.1192/bjp.2019.22>
- [5] Plunkett, R., & Kelly, B. D. (2021). Dignity: The elephant in the room in psychiatric inpatient care? A systematic review and thematic synthesis. *International Journal of Law and Psychiatry*, 75, 101672. <https://doi.org/10.1016/j.ijlp.2020.101672>
- [6] Nordenfelt, L. (2004). The varieties of dignity. *Health Care Analysis*, 12(2), 69–81. <https://doi.org/10.1023/B:HCAN.0000041183.78435.4b>
- [7] Sulmasy, D. P. (2013). The varieties of human dignity: A logical and conceptual analysis. *Medicine, Health Care and Philosophy*, 16(4), 937–944. <https://doi.org/10.1007/s11019-012-9400-1>
- [8] Galvin, K., & Todres, L. (2015). Dignity as honour-wound: An experiential and relational view. *Journal of Evaluation in Clinical Practice*,

- 21(3), 410–418.  
<https://doi.org/10.1111/jep.12278>
- [9] Marley, J. (2005). A concept analysis of dignity. In *Essential concepts of nursing* (pp. 77–91). Elsevier Churchill Livingstone.
- [10] Habermas, J. (2010). The concept of human dignity and the realistic utopia of human rights. *Metaphilosophy*, 41(4), 464–480. <https://doi.org/10.1111/j.1467-9973.2010.01648.x>
- [11] United Nations. (2008). Convention on the rights of persons with disabilities. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html>
- [12] United Nations. (1948). Universal declaration of human rights. <https://www.un.org/en/about-us/universal-declaration-of-human-rights>
- [13] World Health Organization. (2023). Mental health, human rights and legislation. <https://www.who.int/publications/i/item/9789240080737>
- [14] World Health Organization. (2021). Mental health atlas 2020. <https://www.who.int/publications/i/item/9789240036703>
- [15] Care Quality Commission. (2023). Monitoring the Mental Health Act in 2022/23. [https://www.cqc.org.uk/sites/default/files/2024-03/20240321\\_mhareport2223\\_print.pdf](https://www.cqc.org.uk/sites/default/files/2024-03/20240321_mhareport2223_print.pdf)
- [16] Statman, D. (2000). Dignity, humiliation and self-respect. *Philosophical Psychology*, 13(4), 523–540. <https://doi.org/10.1080/09515080020007643>
- [17] Jacelon, C. S., Connelly, T. W., Brown, R., Proulx, K., & Vo, T. (2004). A concept analysis of dignity for older adults. *Journal of Advanced Nursing*, 48(1), 76–83. <https://doi.org/10.1111/j.1365-2648.2004.03170.x>
- [18] Mann, J. (1998). Dignity and health: The UDHR's revolutionary first article. *Health and Human Rights*, 3, 30–38. <https://doi.org/10.2307/4065297>
- [19] Haddock, J. (1996). Towards further clarification of the concept 'dignity'. *Journal of Advanced Nursing*, 24(5), 924–931. <https://doi.org/10.1111/j.1365-2648.1996.tb02927.x>
- [20] Nordenfelt, L., & Edgar, A. (2005). The four notions of dignity. *Quality in Ageing*, 6(1), 17–21. <https://doi.org/10.1108/14717794200500004>
- [21] Sakalys, J. A. (2003). Restoring the patient's voice: The therapeutics of illness narratives. *Journal of Holistic Nursing*, 21(3), 228–241. <https://doi.org/10.1177/0898010103256204>
- [22] Van Gennip, I. E., Pasman, H. R. W., Oosterveld-Vlug, M. G., Willelms, D. L., & Onwuteaka-Philipsen, B. D. (2013). The development of a model of dignity in illness based on qualitative interviews with seriously ill patients. *International Journal of Nursing Studies*, 50(8), 1080–1089. <https://doi.org/10.1016/j.ijnurstu.2012.12.014>
- [23] Goffman, E. (1956). The nature of deference and demeanor. *American Anthropologist*, 58, 473–502. <https://doi.org/10.1525/aa.1956.58.3.02a00070>
- [24] Jacobson, N. (2009). A taxonomy of dignity: A grounded theory study. *BMC International Health and Human Rights*, 9, 3. <https://doi.org/10.1186/1472-698X-9-3>
- [25] Lowman, R. L. (2005). Respect for people's rights and dignity. *Journal of Aggression, Maltreatment & Trauma*, 11, 71–77. [https://doi.org/10.1300/J146v11n01\\_06](https://doi.org/10.1300/J146v11n01_06)
- [26] Seedhouse, D., & Gallagher, A. (2002). Undignifying institutions. *Journal of Medical Ethics*, 28, 368–372. <https://doi.org/10.1136/jme.28.6.368>
- [27] Macklin, R. (2003). Dignity is a useless concept. *BMJ*, 327, 1419–1420. <https://doi.org/10.1136/bmj.327.7429.1419>
- [28] Jacobson, N. (2007). Dignity and health: A review. *Social Science & Medicine*, 64, 292–302. <https://doi.org/10.1016/j.socscimed.2006.08.039>
- [29] World Psychiatric Association. (2020). Code of ethics for psychiatry. [https://www.wpanet.org/\\_files/ugd/842ec8\\_1d812c6b8a4f4d24878eedb8a6376f6.pdf](https://www.wpanet.org/_files/ugd/842ec8_1d812c6b8a4f4d24878eedb8a6376f6.pdf)
- [30] Robison, D., McInnis-Perry, G., Weeks, L. E., & Foley, V. (2018). Dignity in older adults with schizophrenia residing in assisted living facilities. *Journal of Psychosocial Nursing and Mental Health Services*, 56, 20–28. <https://doi.org/10.3928/02793695-20170929-01>

- [31] Lindwall, L., Boussaid, L., Kulzer, S., & Wigerblad, Å. (2012). Patient dignity in psychiatric nursing practice. *Journal of Psychiatric and Mental Health Nursing*, 19(6), 569–576. <https://doi.org/10.1111/j.1365-2850.2011.01837.x>
- [32] Husum, T. L., Legernes, E., & Pedersen, R. (2019). “A plea for recognition”: Users’ experience of humiliation during mental health care. *International Journal of Law and Psychiatry*, 62, 148–153. <https://doi.org/10.1016/j.ijlp.2018.11.004>
- [33] Tranvåg, O., Petersen, K. A., & Nåden, D. (2015). Relational interactions preserving dignity experience: Perceptions of persons living with dementia. *Nursing Ethics*, 22(5), 577–593. <https://doi.org/10.1177/0969733014549882>
- [34] Svedberg, P., Jormfeldt, H., & Arvidsson, B. (2003). Patients’ conceptions of how health processes are promoted in mental health nursing: A qualitative study. *Journal of Psychiatric and Mental Health Nursing*, 10(4), 448–456. <https://doi.org/10.1046/j.1365-2850.2003.00633.x>
- [35] Gustafsson, L.-K., Wigerblad, Å., & Lindwall, L. (2014). Undignified care: Violation of patient dignity in involuntary psychiatric hospital care from a nurse’s perspective. *Nursing Ethics*, 21(2), 176–186. <https://doi.org/10.1177/0969733013490592>
- [36] Baillie, L., & Gallagher, A. (2011). Respecting dignity in care in diverse care settings: Strategies of UK nurses. *International Journal of Nursing Practice*, 17(4), 336–341. <https://doi.org/10.1111/j.1440-172X.2011.01944.x>
- [37] Jacobson, N. (2009). Dignity violation in health care. *Qualitative Health Research*, 19(11), 1536–1547. <https://doi.org/10.1177/1049732309349809>
- [38] Ivbijaro, G., Brooks, C., Kolkiewicz, L., Sunkel, C., & Long, A. (2019, August 21–24). Fighting for dignity in mental health. In *Proceedings of the World Psychiatry Association 19th World Congress of Psychiatry (Lisbon, Portugal)*.
- [39] Hopkins, J. E., Loeb, S. J., & Fick, D. M. (2009). Beyond satisfaction, what service users expect of inpatient mental health care: A literature review. *Journal of Psychiatric and Mental Health Nursing*, 16(10), 927–937. <https://doi.org/10.1111/j.1365-2850.2009.01501.x>
- [40] Schröder, A., Ahlstrom, G., & Larsson, B. W. (2006). Patients’ perceptions of the concept of the quality of care in the psychiatric setting: A phenomenographic study. *Journal of Clinical Nursing*, 15(1), 93–102. <https://doi.org/10.1111/j.1365-2702.2005.01241.x>
- [41] Chochinov, H. M. (2002). Dignity-conserving care—A new model for palliative care: Helping the patient feel valued. *JAMA*, 287(17), 2253–2260. <https://doi.org/10.1001/jama.287.17.2253>
- [42] Bramesfeld, A., Klippel, U., Seidel, G., Schwartz, S. W., & Dierks, M. L. (2007). How do patients expect the mental health service system to act? Testing the WHO responsiveness concept for its appropriateness in mental health care. *Social Science & Medicine*, 65(5), 880–889. <https://doi.org/10.1016/j.socscimed.2007.03.056>
- [43] Chambers, M., Gallagher, A., Borschmann, R., Gillard, S., Turner, K., & Kantaris, X. (2014). The experiences of detained mental health service users: Issues of dignity in care. *BMC Medical Ethics*, 15, 50. <https://doi.org/10.1186/1472-6939-15-50>
- [44] Thomas, K. C., Owino, H., Ansari, S., Adams, L., Cyr, J. M., & Gaynes, B. N. (2018). Patient-centered values and experiences with emergency department and mental health crisis care. *Administration and Policy in Mental Health and Mental Health Services Research*, 45(4), 611–622. <https://doi.org/10.1007/s10488-018-0849-y>
- [45] Woolhead, G., Tadd, W., Boix-Ferrer, J. A., Krajcik, S., Schmid-Pfahler, B., & Spjuth, B., et al. (2006). “Tu” or “Vous”? *Patient Education and Counseling*, 61(3), 363–371. <https://doi.org/10.1016/j.pec.2005.04.014>
- [46] Tranvåg, O., Petersen, K. A., & Nåden, D. (2013). Dignity-preserving dementia care: A metasynthesis. *Nursing Ethics*, 20(8), 861–880. <https://doi.org/10.1177/0969733013485110>
- [47] Chochinov, H. M., McClement, S., Hack, T., Thompson, G., Dufault, B., & Harlos, M. (2015). Eliciting personhood within clinical practice: Effects on patients, families, and health care providers. *Journal of Pain and Symptom*

- Management, 49(5), 974–980.e2.  
<https://doi.org/10.1016/j.jpainsymman.2014.11.291>
- [48] Johansson, I. M., & Lundman, B. (2002). Patients' experience of involuntary psychiatric care: Good opportunities and great losses. *Journal of Psychiatric and Mental Health Nursing*, 9(5), 639–647. <https://doi.org/10.1046/j.1365-2850.2002.00547.x>
- [49] Sellin, L., Asp, M., Wallsten, T., & Wiklund Gustin, L. (2017). Reconnecting with oneself while struggling between life and death: The phenomenon of recovery as experienced by persons at risk of suicide. *International Journal of Mental Health Nursing*, 26(2), 200–207. <https://doi.org/10.1111/inm.12249>
- [50] Chambers, M., McAndrew, S., Nolan, F., Thomas, B., Watts, P., & Kantaris, X. (2017). Service user involvement in the coproduction of a mental health nursing metric: The Therapeutic Engagement Questionnaire. *Health Expectations*, 20(4), 871–877. <https://doi.org/10.1111/hex.12526>
- [51] Husum, T. L., Pedersen, R., & Aasland, O. (2022). Frequent violations and infringements against users in mental health care confirmed by both users and professionals: A quantitative study. *Issues in Mental Health Nursing*, 43(10), 862–869. <https://doi.org/10.1080/01612840.2022.2063461>
- [52] Mayers, P., Keet, N., Winkler, G., & Flisher, A. J. (2010). Mental health service users' perceptions and experiences of sedation, seclusion, and restraint. *International Journal of Social Psychiatry*, 56(1), 60–73. <https://doi.org/10.1177/0020764008098293>
- [53] Rodríguez-Eguizabal, E., Oliván-Blázquez, B., Coronado-Vázquez, V., Sánchez-Calavera, M. A., Gil-De-Gómez, M. J., & Lafita-Mainz, S. (2021). Perception of the primary health care response capacity by patients with and without mental health problems, and health professionals: Qualitative study. *BMC Health Services Research*, 21, 285. <https://doi.org/10.1186/s12913-021-06205-w>
- [54] World Health Organization. (2019). Quality Rights training: Freedom from coercion, violence and abuse. World Health Organization. <https://apps.who.int/iris/bitstream/handle/10665/329582/9789241516730-eng.pdf>
- [55] Solberg, H., & Nåden, D. (2020). It is just that people treat you like a human being: The meaning of dignity for patients with substance use disorders. *Journal of Clinical Nursing*, 29(3–4), 480–491. <https://doi.org/10.1111/jocn.15108>
- [56] Daykin, N., Byrne, E., Soteriou, T., & O'Connor, S. (2008). The impact of art, design, and environment in mental healthcare: A systematic review of the literature. *Journal of the Royal Society for the Promotion of Health*, 128(2), 85–94. <https://doi.org/10.1177/1466424007087806>
- [57] Brown, B., Rutherford, P., & Crawford, P. (2015). The role of noise in clinical environments with particular reference to mental health care: A narrative review. *International Journal of Nursing Studies*, 52(9), 1514–1524. <https://doi.org/10.1016/j.ijnurstu.2015.04.020>
- [58] Schröder, A. (2006). Quality of care in the psychiatric setting: Perspectives of the patient, next of kin, and care staff (Doctoral thesis). Linköping University.
- [59] Ivbijaro, G., Brooks, C., Kolkiewicz, L., Sunkel, C., & Long, A. (2020). Psychological impact and psychosocial consequences of the COVID-19 pandemic: Resilience, mental well-being, and the coronavirus pandemic. *Indian Journal of Psychiatry*, 62(Suppl 3), S395. [https://doi.org/10.4103/psychiatry.IndianJPsychiatry\\_1031\\_20](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_1031_20)
- [60] Abimbola, S. (2023). When dignity meets evidence. *The Lancet*, 401(10372), 340–341. [https://doi.org/10.1016/S0140-6736\(23\)00176-9](https://doi.org/10.1016/S0140-6736(23)00176-9)
- [61] Gaynor-Brook, L., & Editors, P. M. (2023). Towards mental health as a human right: The key role of lived experience. *PLOS Medicine*, 20(10), e1004307. <https://doi.org/10.1371/journal.pmed.1004307>
- [62] Brooks, C. (2022). Co-creating dignity experiences. In *Proceedings of the World Federation for Mental Health Congress (London, UK)*.
- [63] Sunkel, C., & Sartor, C. (2021). Perspectives: Involving persons with lived experience of mental health conditions in service delivery, development, and leadership. *BJPsych Bulletin*, 1–4. <https://doi.org/10.1192/bjb.2021.51>

[64] McGinty, E. E., Alegria, M., Beidas, R. S., Braithwaite, J., Kola, L., Leslie, D. L., et al. (2024). The Lancet Psychiatry Commission: Transforming mental health implementation research. *The Lancet Psychiatry*, 11(5), 368–396. [https://doi.org/10.1016/S2215-0366\(24\)00040-3](https://doi.org/10.1016/S2215-0366(24)00040-3)

[65] World Health Organization. (2021). Guidance on community mental health services. <https://www.who.int/publications/i/item/9789240025707>

[66] Patel, V. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet*, 392(10157), 1553–1598. [https://doi.org/10.1016/S0140-6736\(18\)31612-X](https://doi.org/10.1016/S0140-6736(18)31612-X)

[67] Lund, C., Brooke-Sumner, C., Baingana, F., Baron, E. C., Breuer, E., Chandra, P., et al. (2018). Social determinants of mental disorders and the Sustainable Development Goals: A systematic review of reviews. *The Lancet Psychiatry*, 5(4), 357–369. [https://doi.org/10.1016/S2215-0366\(18\)30060-9](https://doi.org/10.1016/S2215-0366(18)30060-9)

[68] Brooks C, Sunkel C, Stewart HLN. Dignity in mental healthcare: service user perspectives. *Academia Mental Health and Well-Being* 2025;2. <https://doi.org/10.20935/MHealthWellB7523>

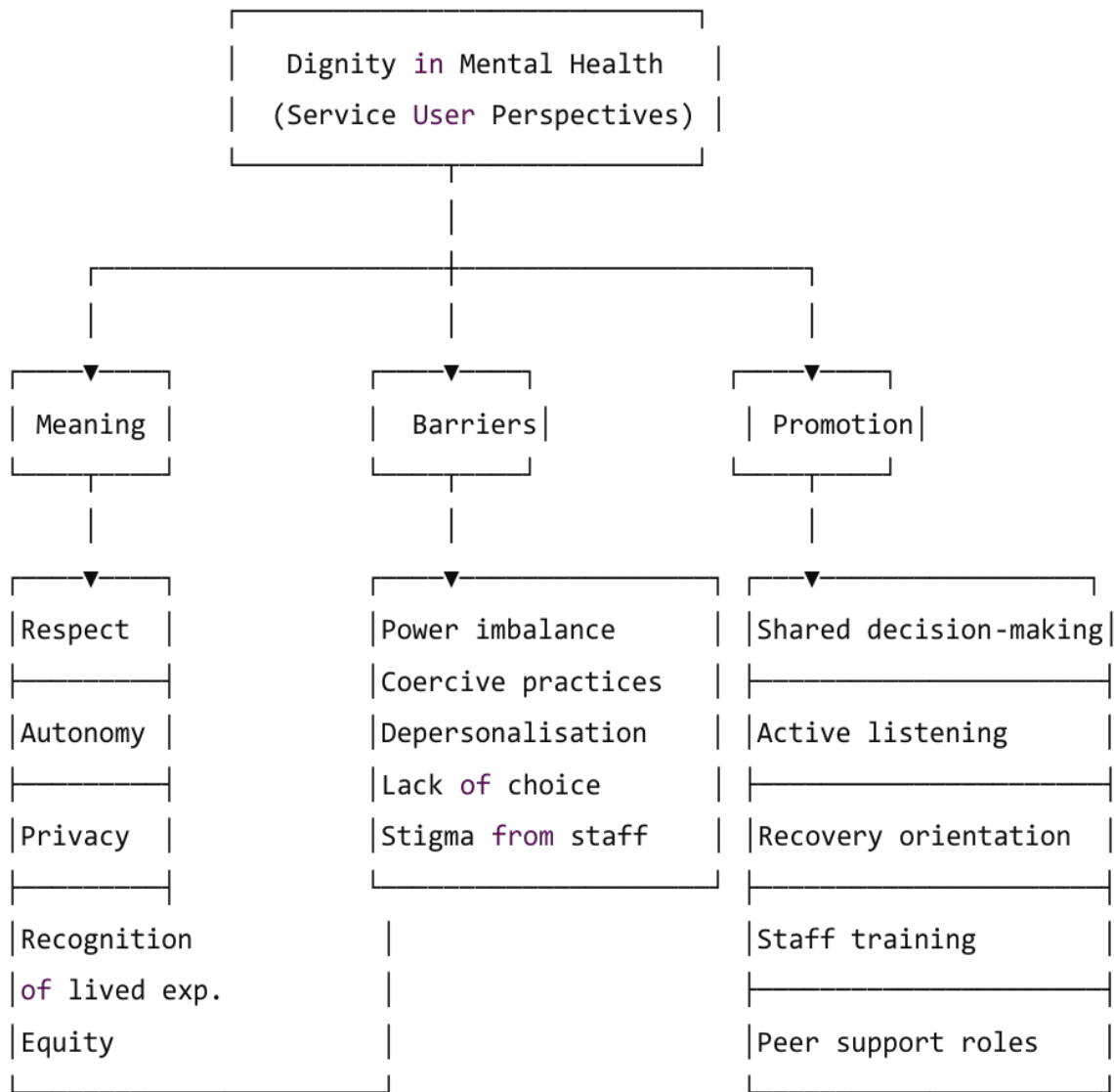
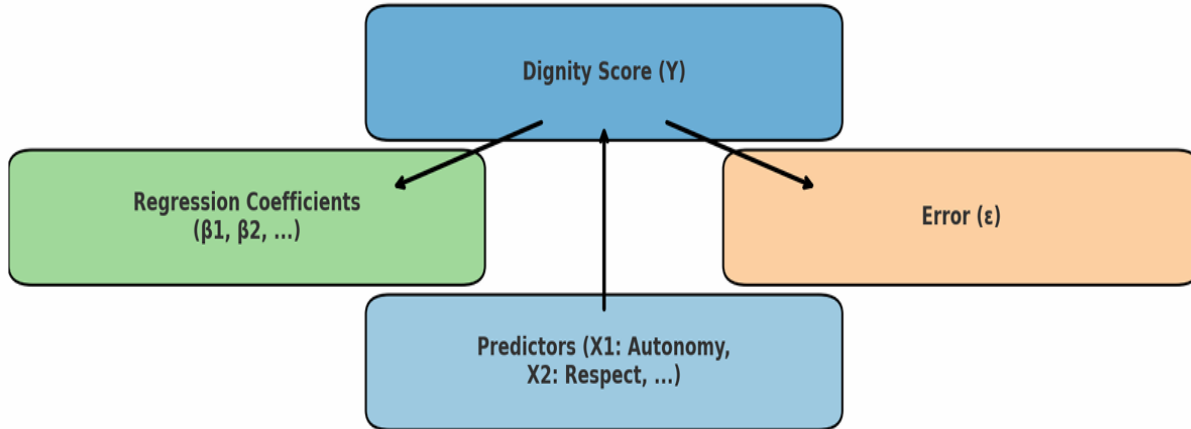


Figure A: Core elements that define dignity for service users in mental healthcare

### Linear Regression Model for Dignity Score



$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \epsilon_i$$

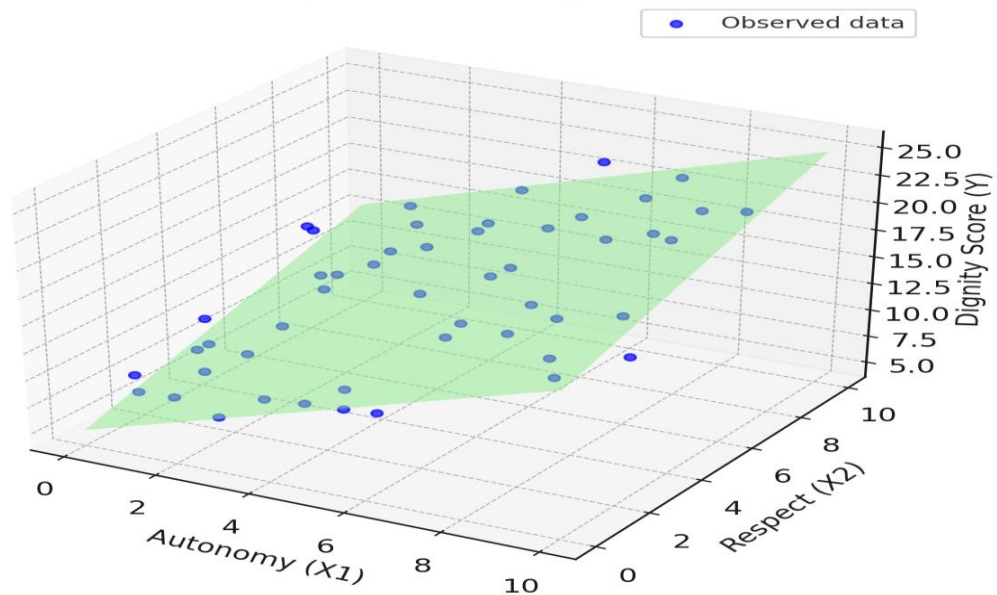
Figure B: Linear regression model for dignity score  
 Mathematical / Statistical equations  
 Dignity in mental healthcare (service-user perspectives)  
 Simple linear

#### Simple linear regression (predict dignity score)

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \epsilon_i, \quad \epsilon_i \sim N(0, \sigma^2)$$

Predict continuous dignity score  $Y$  (e.g., dignity scale) from predictors  $X_1$  (e.g., autonomy),  $X_2$  (e.g., respect).

#### 3D Visualization of Simple Linear Regression (Dignity Score)



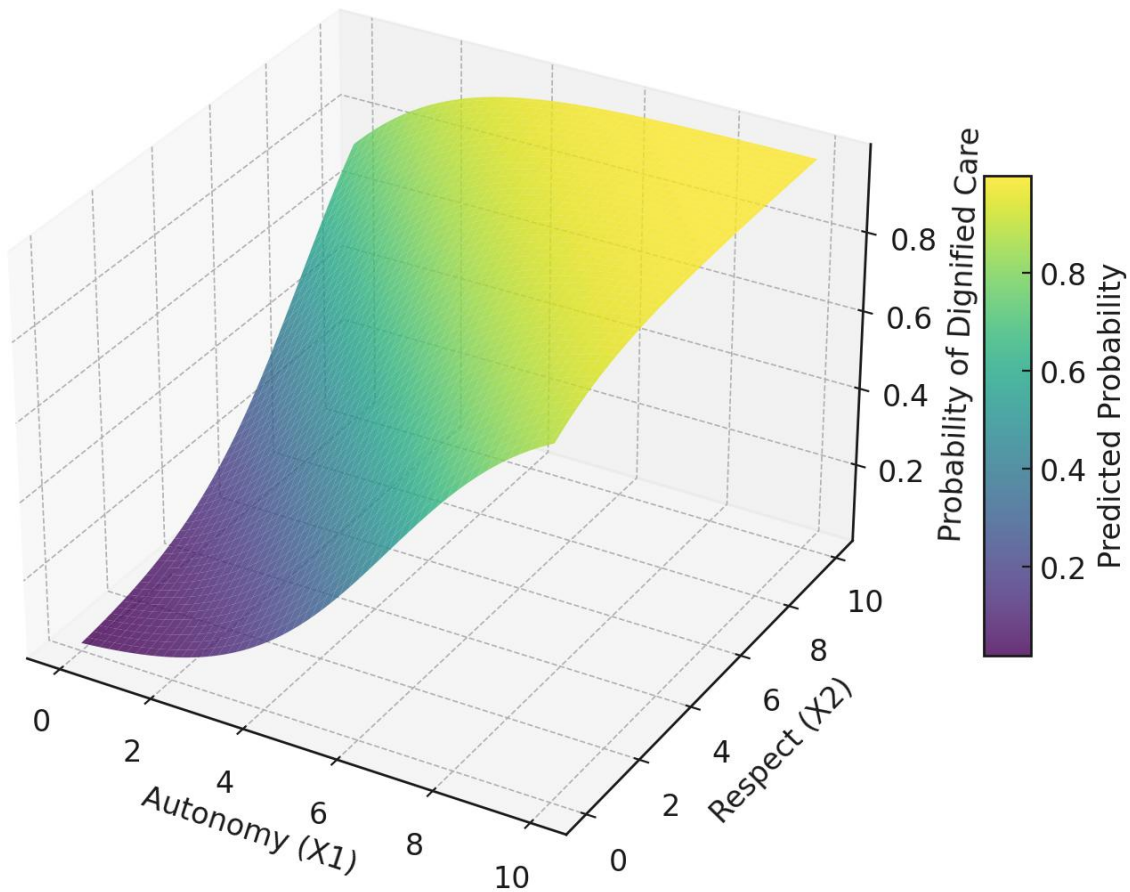
Blue dots = observed dignity scores (simulated data).  
 Green plane = predicted dignity score from regression equation  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$ .  
 $X_1$  = autonomy,  $X_2$  = respect,  $Y$  = dignity score.

**Multiple logistic regression (binary outcome: dignified care yes/no)**

$$\Pr(Y_i = 1) = \frac{\exp(\beta_0 + \beta_1 X_{1i} + \dots + \beta_p X_{pi})}{1 + \exp(\beta_0 + \beta_1 X_{1i} + \dots + \beta_p X_{pi})}$$

Models probability of a binary event (e.g., user reports "dignified care").

**3D Logistic Regression Probability Surface**

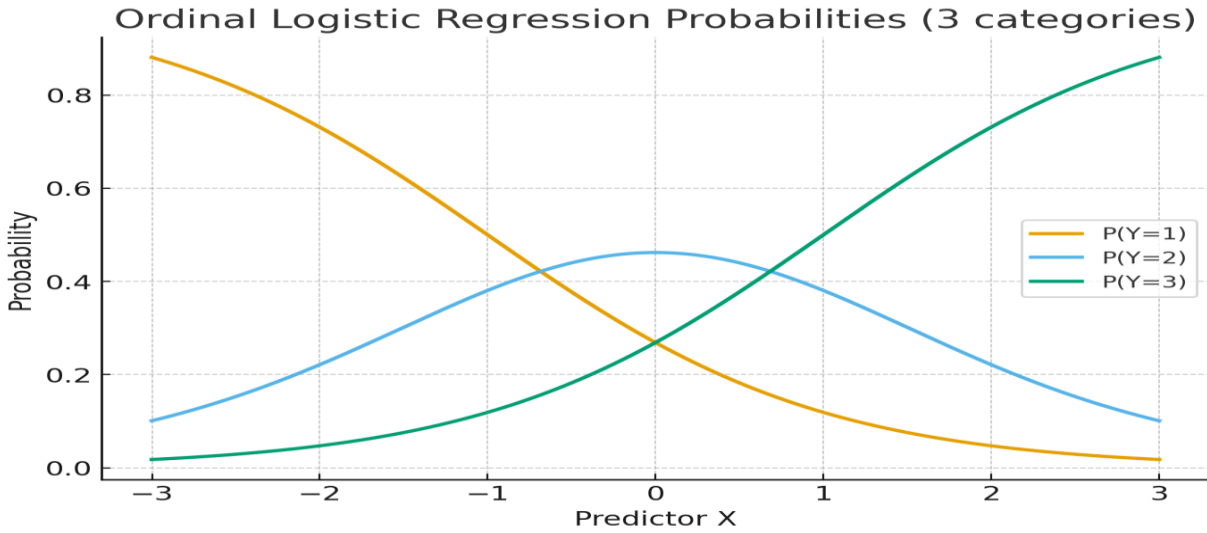


$X_1$  (Autonomy) and  $X_2$  (Respect) are the predictors.  
 The Z-axis (height) shows the predicted probability of receiving dignified care.  
 The color gradient represents probability (purple = low, yellow = high).

**Ordinal logistic regression (ordered response, e.g., Likert dignity item)**

$$\log\left(\frac{\Pr(Y \leq k)}{1 - \Pr(Y \leq k)}\right) = \theta_k - (\beta_1 X_1 + \dots + \beta_p X_p)$$

$k = 1, \dots, K - 1$ ;  $\theta_k$  are cutpoints for ordinal categories.



Ordinal logistic regression solution with 3 outcome categories.

P(Y = 1) (gold) decreases as predictor X increases.

P(Y = 3) (green) increases as X increases.

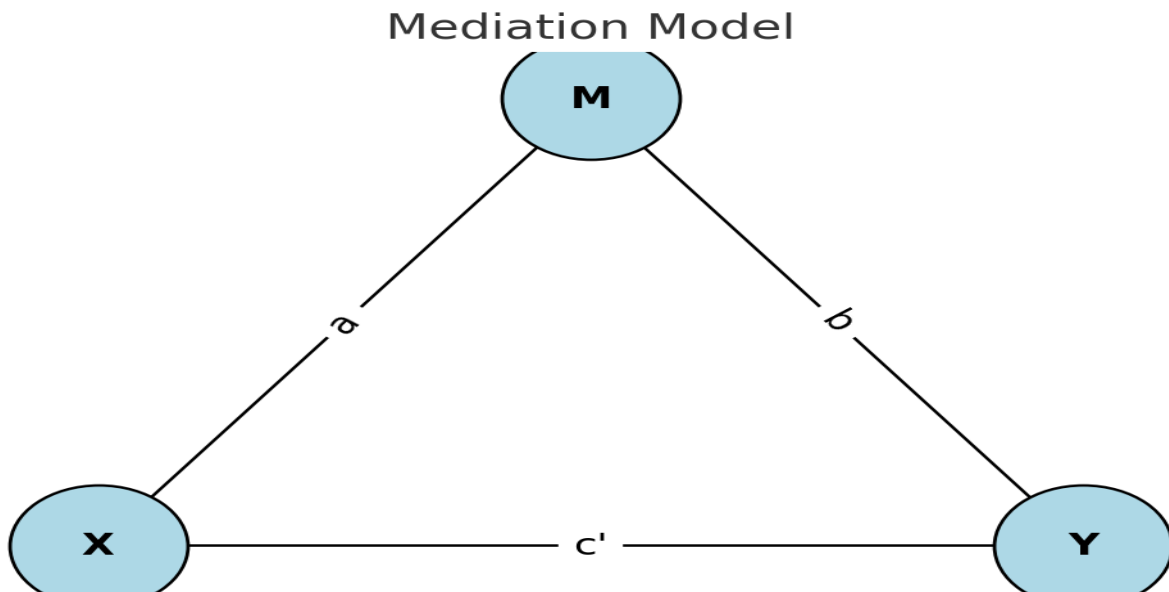
P(Y = 2) (blue) peaks in the middle (between cutoffs).

**Mediation model (does perceived respect mediate the effect of staff training on dignity?)**

$$M = aX + e_1$$

$$Y = c'X + bM + e_2$$

Indirect effect =  $a \times b$ ; total effect =  $c' + ab$ .



Mediation model

X → M with path coefficient a.

M → Y with path coefficient b.

X → Y (direct path) with coefficient c'.

The indirect effect is  $a \times b$  and the total effect is  $c'+ab$ .