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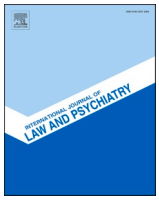

Mental health professionals' perceptions and attitudes towards seclusion: The ambivalent relationship between safety and therapeutic considerations

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ABSTRACT

Background: Frequency of seclusion in acute psychiatric units varies greatly worldwide. In Switzerland, its use is authorised under strict conditions. However, this coercive measure is not implemented in every psychiatric hospital in the country. The use of coercion is associated with a number of patient characteristics as well as organisational, contextual and professional's aspects. Nevertheless, the role of these factors remain inconsistent across studies and different coercive measures are often studied together. Hence, the aim of this study was to assess mental health professionals' perceptions and attitudes towards seclusion according to their experience with this type of measure and their personal and professional background.

Method: Nurses and physicians working in acute adult and geriatric psychiatric units in the Swiss Cantons of Vaud and Valais were invited to participate to an online survey exploring their socio-demographic characteristics, professional background, current position and activity, as well as their perceptions and attitudes towards seclusion. Exploratory Structural Equation Modelling (ESEM) was then used to determine the structure of the participants perceptions and attitudes towards seclusion to identify which socio-demographic and professionals' aspects could predict their underlying dimensions.

Results: 116 mental health professionals agreed to participate in the study. A majority considered that seclusion had a therapeutic impact, while believing that it could also have negative effects or be dangerous for the patient. The majority also thought that seclusion increased the general feeling of safety. Lastly, a substantial proportion felt that the Swiss legal framework regulating seclusion was not sufficiently clear. Mental health professionals' perceptions and attitudes towards seclusion could be described by four dimensions: "Negative consequences", "Safety", "Legitimacy/legal aspect of seclusion" and "Organisational aspects". Analyses revealed a tendency to normalize seclusion as its use increases.

Conclusion: Seclusion poses complex challenges for mental health professionals. The competent authorities should therefore provide careful guidance to help them maintain a high level of quality of care in the use of this coercive measure.

1. Introduction

Coercive interventions are widespread in the management of in-patients in acute psychiatric units and include a range of methods from close patient observation to mechanical restraint, forced medication and seclusion. Seclusion is usually defined as isolation in a locked room or in a locked limited space (Knox & Holloman, 2012; World Health Organization, 2019). Frequency of seclusion varies greatly depending on studies, the years in which they were carried out and the location where they were conducted. In 2008, Janssen et al. reviewed studies performed between 1990 and 2007 in the USA, Australia and in European countries and reported a wide range of seclusion rates [3.7 to 110 per 1000 occupied bed days / 1.3 to 177 per 1000 admissions]. At this time seclusion rate was around 24 per 100 admissions in the Netherlands (Janssen et al., 2008). A more recent Australian study identify 0.4 to 24.1 seclusions per 1000 occupied bed days (Newton et al., 2017). In

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Switzerland, formal coercive measures (such as involuntary hospital admission, forced medication, seclusion and restraint) are subject to mandatory reporting to health authorities. Thus, for the year 2022, 5.14 % of cases involved seclusion in general adult psychiatry units. By definition, a case is here a hospital discharge (ANQ, 2023). However, since how seclusion is defined, measured and monitored can widely vary across countries, international comparisons are difficult to make precisely (Savage et al., 2024).

Over time, characteristics of patients undergoing formal coercive measures, including seclusion, converge: aggressive or agitated behaviour, the presence of psychotic symptoms, risk of harm to self/others, mental retardation or organic mental disorder (Hansen et al., 2020; Happell & Koehn, 2011; Husum et al., 2010; Lay et al., 2011; Muir-Cochrane, 1996). On one hand, several staff-related factors such as good confidence within the staff or good communication with patients have been identified as reducing the use of seclusion. (Boumans et al., 2012; Boumans et al., 2015; Husum et al., 2010). On the other hand, organisational or contextual factors, such as nightshift, low staffing level or high proposition of involuntary inpatients in unit have been associated with a higher risk of seclusion (De Benedictis et al., 2011; Flammer et al., 2022; O'Malley et al., 2007). The influence of not patient-related factors on the decision to seclude was estimated at 37.1 % (Mann-Poll et al., 2011). However, the impact of organisational factors such as size of the hospital, length of stay and work load of nursing staff was found to be weak compared with patient-related characteristics (Lay et al., 2011). All in all, results on these different characteristics still remain inconsistent across studies and different coercive measures are frequently studied together (De Benedictis et al., 2011; Vandamme et al., 2021).

Hence, the aim of this study was to assess mental health professionals' perceptions and attitudes towards seclusion according to their experience with this type of measure and their personal and professional background, especially by comparing the results obtained from mental health professionals working in hospitals with and without seclusion rooms.

2. Material and methods

2.1. Study setting

In Switzerland coercive measures, including seclusion, are strictly regulated by federal and cantonal laws and the general principle is that every therapeutic measure requires the patient's informed consent (Canton of Valais Health Law, 2021; Canton of Vaud Public Health Law, 2019; Convention Convention on the Right of Persons with Disabilities, UN, 2006). Moreover, the legislator has clearly defined the theoretical context within which seclusion is admissible. The use of seclusion, as of all other formal coercive measures, is regulated at the federal level by the article 383 of the Swiss Civil Code, which states that an institution may restrict the freedom of movement of a person lacking capacity of judgment only if less stringent measures were proven to be clearly insufficient (The Federal Authorities of the Swiss Confederation, 2013). The main aim of the measure must be to prevent serious danger to the patient life or to that of others, or to remedy serious disruptions to life inside and outside the institution.

During an involuntary hospitalisation, seclusion can be applied in accordance with art. 383 of the Swiss Civil Code (The Federal Authorities of the Swiss Confederation, 2013, art. 438). The eventuality of using seclusion or other restrictive measures such as forced medication, must be clearly specified in the patient's *treatment plan.* The *treatment plan* is a written document that must be filled out at hospital admission for each involuntary patient, and which contains the care plan (The Federal Authorities of the Swiss Confederation, 2013; art. 433). The main aim of this document is to inform the patient about the different possible scenarios and support them while undergoing a coercive measure. Ideally, the *treatment plan* should be agreed with the patient. However, in case of uncooperativeness, it can be established without the patient's consent. In all cases, the written *treatment plan* must be given to the patient concerned, who has the right to object to it. Other support measures that federal law requires to be implemented to assist patients during a coercive measure are the identification of an *authorised representative* who will provide support throughout the hospital stay (The Federal Authorities of the Swiss Confederation, 2013; art. 432) and a *discharge assessment* carried out at the end of the hospital stay to discuss the care that the patient would prefer in the event of a subsequent compulsory admission (The Federal Authorities of the Swiss Confederation, 2013; art. 436).

Generally, every therapeutic measure requires the patient's informed consent (Canton of Vaud Public Health Law, 2019; Contrôleur Général des Lieux de Privation de Liberté, 2016; Convention on the Right of Persons with Disabilities, UN, 2006; The Federal Authorities of the Swiss Confederation, 2013). However, during an involuntary hospitalisation, in absence of the patient's consent, the chief physician of the department may order a medical procedure planned in the *treatment plan*, including seclusion, under the following cumulative conditions: (i) the patient has lost capacity of judgment, (ii) failure to treat seriously endangers patient or others, and when (iii) no less stringent measures exist (The Federal Authorities of the Swiss Confederation, 2013; art. 434). A written notice of the order must be provided to the patient and their *authorised representative*. In case of emergency, seclusion can be carried out immediately to protect the safety of the involuntary hospitalised patient or of others (The Federal Authorities of the Swiss Confederation, 2013; art. 435). Patients can appeal against these measures to the competent authorities. During seclusion, the patient's clinical condition must be regularly assessed by the hospital team, and the measure must be lifted as soon as possible. These common principles must then be implemented at the cantonal level, generating important variations among cantons. Furthermore, each psychiatric hospital is responsible for deciding whether to use seclusion within its own walls.

This study focused on the Canton of Vaud and of Valais. The Canton of Vaud was selected because, based on the *Swiss National Association for Quality Development in Hospitals and Clinics* statistics (ANQ), its psychiatric hospitals are among the 25 % of the Swiss hospitals with the highest seclusion rate (ANQ, 2023). In 2008 a task force in the Canton of Vaud estimated that seclusion had affected 725 inpatients (on 4756 inpatients, 15,2 %) while acknowledging that this ratio was obviously overestimated. In fact, the used database did not distinguish between seclusion strictly speaking and the use of seclusion rooms kept unlocked during hospital overload (Bovet, 2009). More recent statistics are not available. On the contrary, seclusion does not occur in the French-speaking part of the Canton of Valais, which thus shows one of lowest seclusion rates in Switzerland (ANQ, 2023). In fact, in 1967 the former director decided to make this institution the first psychiatric hospital of Switzerland without seclusion rooms and restraint (Gasser et al., 2022).

2.2. Participants

Participants were nurses and physicians working in acute adult and geriatric psychiatric units in the Cantons of Vaud and Valais. Mental health professionals working in the Canton of Vaud were employed by the Department of Psychiatry of Lausanne University Hospital (*CHUV*) and by the Nant Foundation (*Fondation de Nant)*. This Foundation is a private institution recognised as being in the public interest. It is mandated by the Canton of Vaud to organize and provide psychiatric care in the eastern Vaud region. Mental health professionals working in the French-speaking part of the Canton of Valais were employed by the Valais Hospital (*Hôpital du Valais)*. Participants were contacted directly by their institution that forwarded the e-mail presenting the study and inviting them to participate to the anonymous online survey via a link. A total of 122 physicians (91 in the Canton of Vaud and 31 in the Canton of Valais) and 438 nurses (265 in the Canton of Vaud, 173 in the Canton of Valais) were approached.

2.3. Measures

The online survey was a two-part questionnaire created for the study. The first part consisted of 13 questions concerning the participants' socio-demographic and professional characteristics such as age, sex, profession, current position and activity, years of experience in Switzerland and in other countries and whether seclusion is used in current or has been used in past activity, as well as frequency of use of seclusion in the last 6 months. The second part included 24 questions exploring mental health professionals' perceptions and attitudes towards seclusion on two distinct 5-point-Likert-scale: the first one going from completely disagree to agree, the second one ranging from never to very often. The questions were designed by the research team and were inspired by a questionnaire created for a former study on mental health professionals' feelings and attitudes towards coercion (Morandi et al., 2021). The questionnaires lasted less than 15 min, with a mean duration of 12.0 min and a median duration of 8.8 min.

In this study, seclusion was defined as isolation in a locked room or in a locked limited space that patients cannot leave on their own.

2.4. Statistical analysis

Descriptives statistics were used to summarize participants' socio-demographic and professional characteristics, including their profession, career level and experience of seclusion in present respectively past activity as well as their perceptions and attitudes towards seclusion.

While the questionnaire was not designed as a psychometric scale, we wanted to verify whether underlying dimensions influencing the professionals' answers could be identified. This could allow us to verify the multivariate relationship between the questions and participants' sociodemographic characteristics, professional background et actual activity context. Therefore, Exploratory Structural Equation Modelling (ESEM) with Geomin rotated loadings was first performed on the 24 questions. Chi-square test, Scree plot, model comparison model fit and factor interpretability were used to determine the most adequate number of factors to retain. ESEM was then performed to estimate the relationship between sociodemographic and professional characteristics and the factors. Each variable was first tested independently. Then, a multivariate parsimonious model was performed, including all the variables reaching a $p < .05$ level of significance in the univariate analyses. Statistical analyses were performed using Mplus 8.3 and IBM SPSS 29.

3. Results

3.1. Participants

We received 116 exhaustive questionnaires out of 560 potential participants contacted (overall participation rate = 20.7 %). Physicians' participation rate was 18.9 %. Nurses' participation rate was 21.2 %. Participants had a mean age of 38.9 (± 9.7) years. 60.3 % ($n = 70$) were women. 80.2 % ($n = 93$) were nurses. 46.6 % ($n = 54$) of participants had only work experience in Switzerland. 76.7 % ($n = 89$) worked in a unit where seclusion rooms were available.

Table 1 lists detailed characteristics of participants.

Table 1
Socio-demographic and professional characteristics of the participants ($N = 116$).

Characteristics	
Age, (mean ± SD)	38.9 (± 9.7)
Sex, % (n)	
Male	37.9 (44)
Female	60.3 (70)
Non-binary	1.7 (2)
Profession, % (n)	
Physician	19.8 (23)
Nurse	80.2 (93)
Main activity, % (n)	
Adult hospital mental health unity	80.2 (93)
Geriatric hospital mental health unity	19.8 (23)
Career level, % (n)	
Interns, residents[1] and attending physician[2] clinically involved	13.8 (16)
Medical executive[3]	6.0 (7)
Nurse, head nurse clinically involved	75.9 (88)
Executive nurse[4]	4.3 (5)
Years of practice, % (n)	
< 1 year	0.9 (1)
1–5 year(s)	19.0 (22)
5–10 years	34.5 (40)
> 10 years	45.7 (53)
Work experience only in Switzerland, % (n)	46.6 (54)
Years of practice in Switzerland, % (n)	
< 1 year	4.3 (5)
1–5 year(s)	31.9 (37)
5–10 years	27.6 (32)
> 10 years	36.2 (42)
Relative with mental disorder, % (n)	
Yes	37.1 (43)
No	59.5 (69)
I don't know/I don't want to answer	3.4 (4)
Seclusion available in actual main activity, % (n)	76.7 (89)
Use of seclusion in past activity, % (n)	80.2 (93)
Frequency of seclusion use in the last six months, % (n)	
No use of seclusion	24.1 (28)
1–10 patient(s) secluded	22.4 (26)
11–20 patients secluded	16.4 (19)
>20 patients secluded	37.1 (43)

Note. SD=Standard Deviation.
[1] Graduate physicians engaged in postgraduate training.
[2] Graduate physician with completed residency in psychiatry.
[3] Attending physician involved in service management.
[4] Nurse involved in service management.

3.2. Professionals' feelings and attitudes towards seclusion

Distribution of participants' answers about perceptions and attitudes towards seclusion are reported in Table 2.

3.2.1. Participants' perceptions about the clinical relevance of seclusion

In our sample, 76.7 % agreed or completely agreed with seclusion having a therapeutic role (Question 1) and 62.1 % considered that seclusion speeded up the patient's recovery process (Question 8). However, more than one in two participants (56.9 %) believed that seclusion could have a negative impact on patient's health or could be harmful for the patient, while 19 % had no opinion and 24.1 % disagreed (Question 4). 57.7 % also felt that seclusion did not alter the therapeutic relationship with the patient (Question 12) and a quarter (26.7 %) believed that patients were afterwards thankful for having been secluded (Question 10).

3.2.2. Participants' perceptions about the safety of seclusion

59.5 % found that seclusion helped to avoid aggression from patients whereas 15.5 % disagreed (Question 9). Moreover, 31 % did not feel safer if they had to take care of a secluded patient (Question 22) and slightly less than a third of participants (28,5 %) considered seclusion was likely to lead to an increase in violence (Question 17). However, 55.2 % felt that seclusion increased the general feeling of safety in the unit (Question 19) and 31 % claimed to feel relieved after secluding a patient (Question 2).

3.2.3. Participants' perceptions about the legal aspect of seclusion

Despite the clear legal considerations on this point, 38.8 % of participants regretted that seclusion was only allowed in Switzerland in case of involuntary hospitalisation (Question 5). One in five participants (20.6 %) considered the Swiss legal framework regulating seclusion as not sufficiently clear (Question 14) while almost a third (28.5 %) thought that the support measures provided by the law to secluded

Table 2
Professionals' feelings and attitudes towards seclusion: distribution of answers (N = 116).

Questions	1	2	3	4	5
1. Seclusion has a therapeutic role.[1]	5.2 %	13.8 %	4.3 %	34.5 %	42.2 %
2. I sometimes feel relieved when a patient is secluded.[2]	13.8 %	15.5 %	33.6 %	31.0 %	6.0 %
3. When I/If I were to look after a secluded patient, I (would) empathise with them.[1]	0.0 %	1.7 %	8.6 %	29.3 %	60.3 %
4. Seclusion may be hazardous to the patients or have a negative impact on their health.[1]	6.0 %	18.1 %	19.0 %	31.0 %	25.9 %
5. Seclusion should only be allowed during an involuntary psychiatric hospitalisation.[1]	25.0 %	13.8 %	14.7 %	19.0 %	27.6 %
6. I consider that the support measures provided by the law to secluded patients (identification of a trusted support person and recourse to this person by the patient and professionals) and the monitoring of these measures by the hospital team are sufficient.[1]	6.9 %	21.6 %	25.0 %	39.7 %	6.9 %
7. Sometimes seclusion is applied as a sanction for a patient's recent inappropriate behaviour.[2]	34.5 %	32.8 %	23.3 %	8.6 %	0.9 %
8. Seclusion speeds up the patient's recovery process.[1]	7.8 %	9.5 %	20.7 %	46.6 %	15.5 %
9. Seclusion helps to avoid aggression from patients.[1]	6.0 %	9.5 %	25.0 %	44.8 %	14.7 %
10. Afterwards, patients are thankful for having been secluded.[1]	7.8 %	19.0 %	46.6 %	24.1 %	2.6 %
11. Using seclusion makes me uncomfortable.[1]	26.7 %	30.2 %	18.1 %	11.2 %	13.8 %
12. The use of seclusion alters the therapeutic relationship with the patient.[1]	22.4 %	35.3 %	19.8 %	8.6 %	13.8 %
13. Seclusion prevents patients from finding themselves in a situation that violates their dignity.[1]	6.9 %	12.1 %	23.3 %	40.5 %	17.2 %
14. I believe that the rules (cantonal and federal legal framework) regulating the use of seclusion are sufficiently clear.[1]	3.4 %	17.2 %	26.7 %	40.5 %	12.1 %
15. Seclusion allows to avoid the use of forced medication.[2]	23.3 %	40.5 %	31.0 %	4.3 %	0.9 %
16. Seclusion is used to compensate for the lack of staff on a unit.[2]	62.1 %	16.4 %	14.7 %	6.9 %	0.0 %
17. Seclusion is likely to lead to an increase in violence.[1]	15.5 %	35.3 %	20.7 %	21.6 %	6.9 %
18. The lack of seclusion rooms leads to greater use of medication (dosage, number of medicines used, number of times medicines are taken).[1]	6.9 %	21.6 %	16.4 %	42.2 %	12.9 %
19. The use of seclusion increases the general feeling of safety in the unit.[1]	4.3 %	17.2 %	23.3 %	44.0 %	11.2 %
20. Seclusion should only be used until the medication has taken effect.[1]	19.0 %	30.2 %	19.8 %	26.7 %	4.3 %
21. I may support the use of seclusion under pressure from other professionals on the unit (doctors, nurses, occupational therapists, social workers…).[1]	32.8 %	27.6 %	22.4 %	15.5 %	1.7 %
22. When I/If I were to look after a secluded patient, I (would) feel safer.[1]	12.9 %	18.1 %	39.7 %	24.1 %	5.2 %
23. When patients are secluded, it is difficult to respect their dignity (use of security staff or back-up professionals, undressing/putting on hospital clothes…).[1]	7.8 %	31.9 %	17.2 %	32.8 %	10.3 %
24. Sometimes patients' time in seclusion room is extended in order to reduce the workload on the unit.[1]	69.0 %	21.6 %	6.0 %	3.4 %	0.0 %

Note: [1] 1 = Completely disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Completely agree. [2] 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often; 5 = Very often.

patients were sufficient (Question 6).

3.2.4. Participants' perceptions about the dignity of seclusion

57.7 % believed that seclusion prevented patients from finding themselves in a situation that violated their dignity (question 13), while 43.1 % felt that it was difficult to respect patients' dignity when seclusion was in place (question 23)

3.2.5. Participants' perceptions about the organisational aspects of seclusion

78.5 % disagreed that seclusion was used to compensate for the lack of staff (question 16) and 90.6 % disagreed with the idea that seclusion was sometimes extended to reduce workload (question 24)

3.3. Structure of professionals' feelings and attitudes towards seclusion

The scree plot, model fit indices (Root Mean Square Error of Approximation (RMSEA) = 0.049; Comparative Fit Index (CFI) = 0.977; Tucker Lewis Index (TLI) = 0.965) and model comparison between the three- and four-factor solutions ($\chi^2(21) = 50.147$, $p < .001$) suggested that the latter was the most satisfactory. The 4-factor model was also the most interpretable one. Factor 1 could be interpreted as the *Negative consequences* of seclusion, investigating its clinical impact and utility (Questions 1, 8, 10, 12, 13, and 20), the perceived risk associated with its use (Questions 4 and 17) and the professional's comfort perceived when using it (Questions 11 and 23). Factor 2 could be interpreted as the *Safety* of seclusion, referring to the professional and patient's perceived safety when using it (Questions 2, 9, 18, 19 and 22). Factor 3 could be interpreted as the *Legitimacy/legal aspect* of seclusion, describing professionals' understanding of the legal framework and how it relates to their practice (Questions 6 and 14). Finally, Factor 4 encompassed the *Organisational aspects* related to the use of seclusion, investigating the interaction between the latter and hospital overload or lack of staff (Questions *3, 7*, 16 and 24*)*. Three questions (5, 15 and 21) were not significantly associated with one of the four factors. Table 3 shows the distribution of questions and correlation between factors.

Table 3
Exploratory Factor Analysis (EFA): factor loading and correlation between factors ($N = 116$).

Questions	Factor 1 Negative consequences of seclusion	Factor 2 Safety	Factor 3 Legitimacy/legal aspect	Factor 4 Organisational aspects
1	-0.801*	0.325	-0.062	-0.045
4	0.478*	-0.234	0.158	0.132
10	-0.605*	0.021	0.170	0.042
11	0.707*	-0.224	0.049	0.150
12	0.883*	0.141	-0.003	0.026
17	0.477*	-0.257	-0.047	0.173
20	0.533*	0.117	0.329*	-0.021
23	0.565*	0.145	-0.151	0.131
8	-0.631*	0.439	0.129	0.099
13	-0.538*	0.423	0.050	0.251*
2	-0.349	0.641*	-0.103	-0.049
9	-0.087	0.616*	0.103	-0.130
18	0.085	0.543*	0.255	0.044
19	0.023	0.727*	-0.018	0.002
22	-0.017	0.655*	0.090	-0.159
6	-0.303	0.030	0.788*	-0.017
14	-0.106	0.145	0.421*	-0.101
3	-0.372	-0.037	0.212	0.585*
7	0.006	0.192	-0.247*	0.653*
16	0.087	-0.027	-0.011	0.802*
24	0.085	-0.036	-0.162	0.814*
5	0.160	0.231	0.175	0.105
15	0.036	0.250	0.363*	-0.053
21	0.195	0.181	-0.010	0.209
Factor correlations				
Factor 1	1.000			
Factor 2	-0.288	1.000		
Factor 3	-0.254	0.349	1.000	
Factor 4	0.551*	-0.263*	-0.106	1.000

Note: The items with significant factor loading ≥ 0.4 are in grey. Rotation method: Geomin.
*p<.05

3.4. Factors associated with professionals' feelings and attitudes towards seclusion

The ESEM results are presented in Table 4 and 5. (See Table 5.)

Results with statistical significance are presented here. Concern about the negative consequences of seclusion was higher among executive nurses than nurses. It was also significantly greater among professionals who had only worked in Switzerland. Mental health professionals' concern about the negative consequences of seclusion was however significantly lower among professionals working in places where seclusion was available in daily activity.

Considering organisational aspects, such as the opportunity to use seclusion to compensate for the lack of staff or to reduce workload, these were less frequently mentioned by professional working in a geriatric psychiatric unity. Organisational aspects were taken significantly more into account by clinically involved physician (interns, residents and attending physician) than nurses. In contrast, the more seclusion was used, the less these aspects were considered.

Professionals who have only worked in Switzerland were more likely to feel that the legal framework governing seclusion was insufficient.

Table 4
Exploratory structural equation modelling (ESEM): standardised results for socio-demographic and professional characteristics predicting factor scores (N = 116).

Characteristics	Factor 1 Negative consequences of seclusion		Factor 2 Safety		Factor 3 Legitimacy/legal aspect		Factor 4 Organisational aspects	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Main activity (ref. adult hospital mental health unity)								
Geriatric hospital mental health unity	0.830*	0.250	−0.063	0.317	−0.408	0.528	−0.743	0.442
Career level (ref. nurse, head nurse clinically involved)								
Intern, resident [1] and attending physician[2] clinically involved	0.320	0.344	0.531	0.331	−0.145	0.390	0.584*	0.297
Medical executive[3]	0.532	0.395	0.394	0.335	−0.092	0.449	0.433	0.423
Executive nurse[4]	1.524**	0.399	−1.060	0.628	−0.952	0.678	1.471*	0.454
Years of practice	−0.247*	0.107	−0.156	0.110	0.043	0.152	−0.112	0.118
Work experience only in Switzerland								
Yes	0.435*	0.191	−0.033	0.272	−0.690**	0.187	0.004	0.291
Relative with mental disorder (ref. no)								
Yes	0.165	0.213	0.057	0.219	0.007	0.237	0.610*	0.201
I don't know/want to answer	0.068	0.570	0.196	1.046	0.246	1.046	0.148	0.612
Seclusion available in actual main activity	−0.899*	0.343	0.938*	0.277	−0.088	0.468	−0.720*	0.244
Frequency of use of seclusion in the last six months	−0.381*	0.116	0.329*	0.127	−0.024	0.170	−0.251*	0.112

Note. SE = Standard error. * $p < .05$; ** $p < .001$.
[1] Graduate physician engaged in postgraduate training.
[2] Graduate physician with completed residency in psychiatry.
[3] Attending physician involved in service management.
[4] Nurse involved in service management.

Table 5
Exploratory structural equation modelling (ESEM): standardised results for the synthetic model predicting factor scores (N = 116)

Characteristics	Factor 1 Negative consequences of seclusion		Factor 2 Safety		Factor 3 Legitimacy/legal aspect		Factor 4 Organisational aspects	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Main activity								
Geriatric hospital mental health unity	0.352	0.319	0.384	0.540	−0.427	0.352	−1.234**	0.298
Career level								
Intern, resident[1] and attending physician[2] clinically involved	0.390	0.277	0.135	0.411	−0.455	0.389	0.669*	0.260
Medical executive[3]	0.931	0.361	0.402	0.613	−0.380	0.517	0.447	0.396
Executive nurse[4]	1.734**	0.432	−1.005	0.891	−1.207	0.648	1.289	0.673
Work experience only in Switzerland								
Yes	0.375*	0.183	−0.231	0.266	−0.715*	0.208	0.314	0.230
Seclusion available in actual main activity	−0.791*	0.296	0.494	0.490	0.395	0.458	−0.139	0.422
Frequency of use of seclusion in the last six months	−0.036	0.146	0.152	0.161	−0.105	0.180	−0.346*	0.175

Note: SE = Standard Error; * $p < .05$; ** $p < .001$.
[1] Graduate physician engaged in postgraduate training.
[2] Graduate physician with completed residency in psychiatry.
[3] Attending physician involved in service management.
[4] Nurse involved in service management.

Lastly, our study did not reveal any professionals' characteristics specifically associated with the safety factor as well as it showed no association between attitudes and perceptions towards seclusion and age, gender, profession or years of experience in psychiatry.

4. Discussion

This study highlights the complexity for mental health professionals of apprehending seclusion in psychiatric hospital. It also points to the ambivalent relationship between safety and therapeutic aspects surrounding this coercive measure. Although it has never been formally recognised (Contrôleur général des lieux de privation de liberté, 2016), the therapeutic role of seclusion was widely emphasized by study participants, as was its clinical usefulness. At the same time, more than one in two (almost 57 %) believed that seclusion could have a negative impact or could be dangerous to patient. When it comes to safety, however, the distribution of answers was less polarized. While a slight majority felt that seclusion reduced the risk of aggression and increased the general feeling of safety, almost a third of participants considered that seclusion was likely to lead to an increase in violence. These results differ from earlier studies, which reported a less critical attitude towards seclusion, while considering it to be very necessary, not very punitive and a highly therapeutic practice (Meehan et al., 2004). It has also been shown that seclusion increased feeling of personal safety (El-Badri & Mellsop, 2008) and that, despite ethical issues, professionals predominantly supported seclusion in threatening situations as an appropriate form of treatment (Doeselaar et al., 2008). This tendency was also found when seclusion and restrain were analysed together (Korkeila et al., 2016) or when all kind of coercive measures were assessed simultaneously (Molewijk et al., 2017).

In accordance with other publications (Boumans et al., 2012; O'Malley et al., 2007), our results showed no association between supporting seclusion and age, gender, profession, or years of experience in psychiatry. However, these are at odds with another study reporting that being a male staff member was significantly associated with a higher use of seclusion (Whittington et al., 2009).

We demonstrated no difference in sensitivity to negative consequences of seclusion between the different professions directly involved in the clinic. Only executive nurses were more concerned about these aspects, which is partly in line with previous results on coercive measures showing that leadership responsibility was associated with reluctance (Molewijk et al., 2017; Morandi et al., 2021). Professionals who have only worked in Switzerland were also significantly more concerned by these consequences than others. This result could be explained by the fact that professionals coming from abroad have other legal backgrounds, usage habits and traditions. In our study, 52 participants had previously worked in France, where the General Controller of places of deprivation of liberty (in French: *Contrôleur général des lieux de privation de liberté*) depicted in his, 2016 report *very frequent* problematic seclusion indications not acknowledged by the French Health Authority and reported having observed the use of seclusion for disciplinary or sanctioning purposes (Contrôleur général des lieux de privation de liberté, 2016). Moreover, a 2024 publication estimated that seclusion rate in France was above the median of recent Western country assessments. This result was even more marked for restraint (Touitou-Burckard et al., 2024). However, comparisons of national frequency of use must be made with caution, as there may be variations in practice definition, measurement methodologies and data robustness between countries.

In addition, we have shown that seclusion was normalised and tended to become ordinary, with a reduction in professionals' concern about its negative consequences, when seclusion rooms were available in the unit and thus their use could be considered in daily activity. This is also in line with previous results on seclusion (Mann-Poll et al., 2011; Molewijk et al., 2017) and coercive measures in general (Morandi et al., 2021; Whittington et al., 2009). However, no association was found between the use of seclusion in the past and the professionals' current inclination to seclude.

Organisational aspects related to hospital and/or staff overload were considered more by clinically involved physicians. This can easily be explained by the fact that these physicians were working in the units themselves, so they were directly affected by the patient flow. Moreover, they had decisional responsibility for seclusion. However, our results also showed that the more experience mental health professionals gained in using seclusion, the less weight they attached to these aspects. A particularly marked difference could be seen in geriatric psychiatric units. Professionals working in such places were significantly less affected by organisational aspects and therefore more concerned by other factors such as clinical features. We believe that this might be explained either by a lower patients flow and/or overload or by the fact that it is more challenging to impose coercion on patients who remind professionals of their own parents. Thus, such decision could be weighed more carefully.

Finally, we were surprised to discover that professionals who have only worked in Switzerland were more likely to feel that the legal framework governing seclusion was insufficient compared to those with different legal backgrounds. Insofar as the former were more aware of the negative consequences of seclusion, we believe that this difference could be explained by the fact that they were more interested in requirements of the Swiss law. Since the law is especially restrictive and strict regarding seclusion and its provided support measures, scrupulous adherence to them is challenging. This could explain their less comfortable position and need to obtain more formal guidance.

Our study has the advantage of focusing on the analysis of local professionals' perceptions and attitudes towards seclusion only and not towards all coercive measures. Analysis of local practices is crucial, as it has been shown that coercion is more closely associated with hospital culture and policies than patients' attitudes (Hotzy et al., 2019). Moreover, our study covers all mental health professionals working in hospital psychiatric units directly or indirectly involved in seclusion. However, some limitations should also be discussed. First, the anonymous and on a voluntary basis online survey could have led to a selection bias, fostering the participation of professionals more interested in seclusion issues. Indeed, even though the ratio between doctors and nurses was preserved in our sample, only one out of five of those invited to participate completed the survey (20 %) and no comparison could be made between responding and not-responding groups. In addition, our study was limited to mental health professionals of Canton of Vaud and of the French-speaking part of Canton of Valais. Thus, any generalisation of the results, even on a local level, must be made with caution. Using the World Health Organization's standard definition of seclusion, we did not distinguish between the use of seclusion rooms and the use of restricted seclusion spaces comprising a closed room and a closed access hatch, that the patient may have access to under certain conditions. Similar seclusion spaces have recently been implemented in one of the hospitals participating in the study. We have consciously decided not to differentiate between these two infrastructures as it remains to be seen how professionals perceive these different forms of seclusion and the impact they have on patients' experiences of coercion. Further analysis of the potential impact of this architectural specificity could nevertheless be interesting. Finally, the use of ESEM allowed us to extract factors that reflect reality more accurately than non-ESEM procedures. Indeed, ESEM has been shown to produce less biased inter-factor correlations and model estimation, more realistic reliability estimates and a better model fit (Prokofieva et al., 2023). However, ESEM models also have some drawbacks, such as the occasional lack of parsimony, the difficult interpretability of the factors or the potential influence that the rotation procedures selected may have on the size and direction of the estimated factor correlations and cross-loadings (Marsh et al., 2014; Marsh et al., 2020).

National research on seclusion, its frequency of use and the experience of the professionals and patients concerned seems necessary to obtain a Swiss representative overview. It seems also essential to gather similar data on other forms of formal coercion such as forced medication and mechanical restraint to analyse mental health professionals' perceptions and attitudes towards these forms of coercion. This would help to identify the interventions considered more acceptable by professionals and patients, to improve practices while respecting non-maleficence and autonomy. Further research into professionals' attitudes and perceptions towards coercion would also make it possible to offer training that meets their needs and enhances their skills.

5. Conclusion

Seclusion poses complex challenges for mental health professionals with an ambivalent relationship between safety and therapeutic considerations. Our study identified a tendency to normalize seclusion as its use increases. It also emphasized the necessity to acquire sufficient experience to establish its indication in order to limit the impact of organisational factors in favour of clinical aspects. In conclusion, competent authorities should provide the necessary support to mental health professionals to help them stay aware of the seriousness of this measure, so that its use remains carefully weighed. In addition, regular ongoing training about the legal framework and an appropriate use of coercive measures, more respectful of the patients' rights and dignity, should be developed to help them, regardless of their background, to maintain high quality of care.

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CRediT authorship contribution statement

Grégory Yersin: Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Benedetta Silva:** Writing – review & editing, Formal analysis. **Philippe Golay:** Writing – review & editing, Formal analysis. **Stéphane Morandi:** Writing – review & editing, Supervision, Methodology, Conceptualization.

Declaration of competing interest

None.

Data availability

Raw data supporting the conclusions of this study can be obtained by contacting Grégory Yersin (gregory.yersin@hin.ch).

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