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Resilience of Patients in Mental Health Care and the Engagement Model: A Mixed Methods Evaluation

Sitvast J[1], Brummel J[2] and Noorthoorn EO[2]*

[1]University of Applied Sciences, Hogeschool Utrecht, Netherlands

[2]Mental Health Organization, Netherlands

Abstract

This article aims at reporting on how the Engagement Model has been implemented on 9 acute wards of a mental health care hospital and how this contributed to a reduction of rates of seclusion and restraint.

We adopted the format of a case report based on reflections from the researcher (author) involved as agent in the implementation process. Secondly, coercive measures were rated using the Argus rating scale. This scale is used nationwide in the Netherlands. It covers seclusion, restraint and enforced medication.

The steps are described that were taken to arrive at a consensus document that listed 12 core factors which then were translated in concrete interventions. A scoring instrument, EMOPI (Engagement Model Oriented Practice Inventory), was devised that was used to monitor the implementation process of these interventions. This monitoring showed that implementation during the first 6 months focused on basic aspects as hospitality and transparency of information giving and those other, more expertise-informed interventions as for instance trauma-informed treatment were held at bay. The assessment of data on restraint and seclusion showed that from 2010 until 2013 a reduction was achieved in rates of number of applied measures of seclusion and restraint and that also the duration of these measures has been reduced. However, rates were increasing again after 2013. This is probably caused by the end of the project and diminished focus due to organizational factors.

Keywords: Seclusion and restraint; Engagement; Mental health nursing; Resilience; Implementation evaluation

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Correspondence:
Jan Sitvast, University of Applied Sciences Hogeschool Utrecht, Bolognalaan 101, Utrecht, 3584 CJ, Netherlands, Tel: 0031614328220; E-mail: jan.sitvast@hu.nl

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Introduction

The study was performed in a large Mental Health Organization. It is a provider for mental health care in the eastern part of the Netherlands. It offers psychiatric services in a patient catch area of about 750.000, each year approximately 18,000 patients use the care provided, of which 2,500 are admitted. These people live in medium-sized and small towns and countryside. It is developed a vision on care that departs from the conviction that strengthening client's resilience must play a central role in treatment and support. At the same time it acknowledges that the use of seclusion and restraint may be considered at odds with this vision. It therefore strives for minimizing seclusion and restraint. Both agendas are closely interconnected where strengthening resilience precludes the use of seclusion and restraint. The Mental Health Organization recognizes in the resilience of clients an important power for recovery. The discussion focused on how to facilitate this. In the Engagement model an approach was found that matches best the strengthening of resilience, thus also contributing to the reduction of rates of seclusion and restraint. The Engagement model teaches caregivers how to engage in contact with clients in such a way that patients experience warmth, trust and hospitality. This furthers an active involvement between clients, family and caregivers. The Engagement Model is actually an operationalization of one of the processes in person-centered nursing as understood by McCormack and McCance [1]. Person-centered processes focus on delivering care through a range of activities including working with patient's beliefs and values, engagement, having sympathetic presence, sharing decision-making and providing for physical needs, "Engagement reflects the quality of the nurse-patient relationship having sympathetic presence highlights an engagement that recognizes the uniqueness and value of the individual by appropriately responding to cues" (Figure 1) [1].

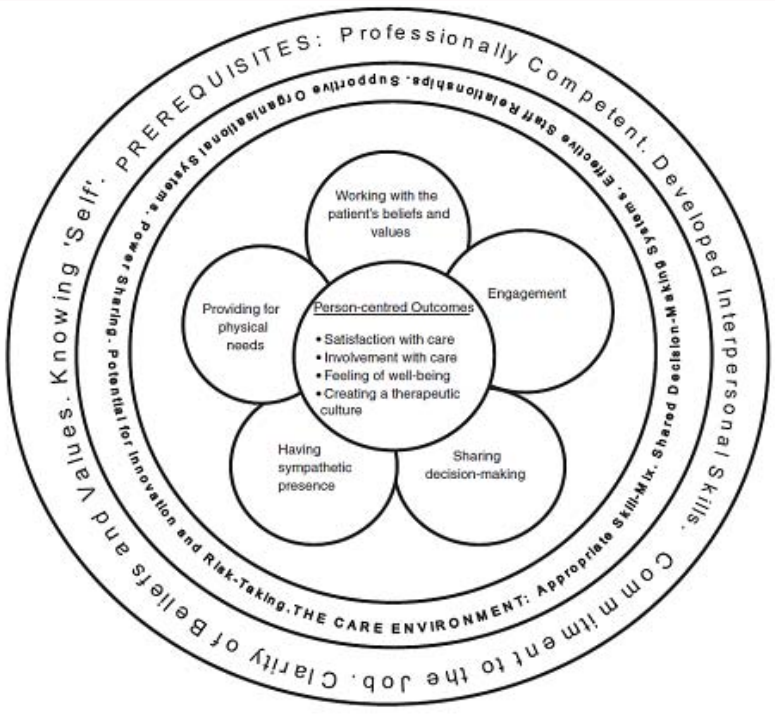

Figure 1: The Person-centered Framework according to [1].

Figure 2A: A comfort room. From the report of an expert nurse we read: "One of the biggest problems from this ward was the lack of facilities. As a patient you stayed on a busy ward or in your bedroom. There were no facilities available in the event of imminent escalations. We therefore created a comfort room. (See the two pictures). Freely accessible and primarily meant so that the patient could relax again".

Figure 2B: From the report from one of the expert nurses: "We gave up our nursing office, instead we created a counter. We created an extra bed room; this gave us extra income that allowed us to update our seclusion unit".

We described the Engagement Model and its tenets in an earlier article [2]. This article is a follow-up of that article. In this article we will focus on the implementation of the Engagement Model in the Mental Health Organization.

In the Netherlands it was the increasing interest in reducing seclusion and restraint that led to a broad discussion on interventions and approaches how to realize good care, handle crises and at the same time guarantee safety without having to resort to violation of physical integrity [3]. Best practices like 'The First Five Minutes' have been developed and more comprehensive monitoring of risks was introduced (the Safe wards approach for instance) [4]. At the same time overall organization models for high intensive crisis care have found their way into acute mental health care. These models, ways and procedures aim at monitoring risks and creating an atmosphere of hospitability and cooperation and are thus closely related to the Engagement Model. In the Mental Health Organization the best practice 'The First Five Minutes' has been introduced in 2009/2010 and integrated in the more encompassing Engagement Model.

The question we address in this article is how the Mental Health Organization set about to implement the Engagement Model on all its crisis stabilization units, open units and medium term units for patients who are taken in from society. The nine wards that participated in the implementation program differed widely: from juvenile wards to units for the elderly, from forensic patients to voluntary patients (Table 1). The article will also address how the Mental Health Organization monitored the process and how the outcomes are related to its ambition to reduce rates of seclusion and restraint.

Implementation

We followed a responsive evaluative design in which an expert

Table 1: The12 factors of the Engagement Model.

Organization and management
Transparent and coherent vision
Committed and enthusiast leadership
Visibility and availability of data
Deployment of experiential experts
Expertise and staff attitude
Implementation of the best practice 'The First Five Minutes'
Trauma-informed treatment
Hospitality and client approach
Motivational interviewing techniques
Continuous team reflection
Housing
Comfort rooms
Healing environment, atmosphere, 'warmth'
Family participation

panel of professionals is asked to discuss a concept reference text concerning the Engagement Model that has been drafted by a researcher (the first author) after a thorough study of existing literature [5-8]. The same procedure has been followed in an earlier phase to reach consensus about directives in the best practice 'The First Five Minutes' that we consider as constituting one of the core practices that make out the Engagement Model [2,9]. The reference text that was adjusted and fine-tuned in a couple of rounds of discussion and dialogue between expert panel and the researcher contained a translation of the principles of engagement into 12 core dimensions or factors in 3 domains that covered the whole spectrum of organized care in a hospital ward (Table 1).

Then we (the first author) set out to operationalize these 12 factors into concrete strategies and directives. A uniform set of criteria was devised on a 5-points scale with which caregivers and management during the implementation process can assess what degree of fidelity has been attained between the praxis of care and the interventions that have been described for each factor. It was called EMOPI (Engagement Model Oriented Practice Inventory) as it was modelled after the ROPI-instrument that is used in psychiatric rehabilitation and recovery [10]. Measuring the progress of ongoing implementation at fixed six months', intervals in this way yielded information to monitor the process in a PDCA-cycle (Plan-Do-Check-Act) of improving care. At the same time the information enabled benchmarking between wards. Just as had happened with the 12 factor reference text EMOPI was also evaluated and fine-tuned in a dialogue with leading nurses within The Mental Health Organization who gave feedback based on experiences with using the instrument. The path of developing the instrument and implementation was as follows (Table 2).

Apart from measuring the progress of implementation with EMOPI we measured the effect of Engagement on rates of seclusion and restraint. In what ways did actions undertaken in implementing the Engagement Model contribute to a reduction of rates of seclusion and restraint? One of the factors (number 3) in the Engagement Model is the degree of availability and visibility of reliable data on seclusion and restraint. The Engagement Model screening instrument thus connects with the implementation of Argus, a dataset of recorded numbers of applied measures of seclusion and

Table 2: Path of developing the instrument and implementation.

Phase 1	Drafting a reference text that summed up the 12 core factors of the Engagement Model
Phase 2	Discussion in expert panel of reference text and fine-tuning in dialogue rounds with researcher
Phase 3	Operationalization of 12 factors in concrete actions and interventions
Phase 4	Devising criteria for scoring the implementation of actions and interventions
Phase 5	Designing a format for interpreting quantities data from Argus as outcome measures for actions and interventions
Phase 6	Start of scoring implementation of Engagement Model: a baseline assessment. At the same time Argus data became available on ward level. Actions were planned and target scores on the 5-points scale in order to achieve a higher level of model fidelity. In terms of outcomes target scores were set using rates of seclusion and restraint.
Phase 7	Repeated measurements were done at 6 months' intervals. Data were used to evaluate and adjust actions in the context of implementation.

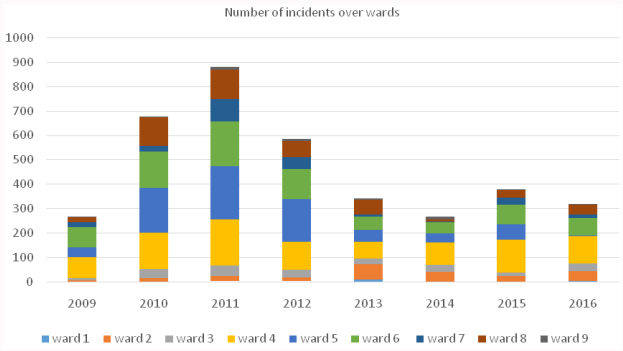

Figure 3: Number of incidents per year per ward.

restraint that is uniformly used by most mental health care institutes in the Netherlands [11]. A format has been developed to interpret quantitative data that became available from the processing of Argus data as trend indicators and relate them for evaluation purposes to the actions aimed at reduction of seclusion and restraint.

On every ward an experienced and specially trained caregiver (nurse or support worker) has been assigned to coach and train colleagues in applying interventions and approaches in the context of Engagement and the reduction of seclusion and restraint. These expert nurses also play an important role in filling out the scores on the scoring form every six months. Together with the team leader and the responsible psychiatrist they revise and adjust the action plans in order to achieve goals and attain the target points. After an initial baseline measurement on July 01, 2010 further measurements were done at six months' interval (Table 3).

Background information on EMOPI

As mentioned afore EMOPI was modelled after the ROPI-instrument that is used to score how supportive psychiatric services facilitate recovery processes in their clients. We adopted the ROPI 5-points scale and adapted it to make visible how services progress in their implementation of the Engagement Model. Scoring is done for each of the 12 dimensions or factors, adding up to a total score. On the 5 points scale value '1' is rated when a ward team is still pondering over the principles and interventions of Engagement. A team can go beyond that and formulate a vision that is translated into actions to realize it (policy making). Then a value '2' can be scored in EMOPI. The actual realization of premeditated actions yields a score of '3'. Value '4' is reserved for extensive and full implementation. The highest level of '5' can only be attained when a team has shown

Table 3: Example of scoring form.

Factors Engagement Model	Baseline	Target Scores	Follow-up Scores
Planning	June 30th	October 1st	December 31st
Date of assessment			
Organisation and management			
Transparent and coherent vision	1	5	3
Committed and enthusiastic leadership	0	2	2/3
Visibility and availability of data	0	5	5
Deployment of experiential experts	0	5	1
Expertise and staff attitude			
Implementation of the best practice 'The First Five Minutes'	1	4	2
Trauma-informed treatment	1	4	2
Hospitality and client approach	2	5	3/4
Motivational interviewing techniques	0	3	4
Continuous team reflection	3	5	3
Housing			
Comfort rooms	0	3	3
Healing environment, atmosphere, 'warmth'	0	3	2
Family participation	1	3	3
This scoring form was filled out by	**Name**	**Function**	**Signature**
	Johnson	cns	

Table 4: An example of criteria on the 5-points scale: Trauma-informed treatment. The instruction is to encircle the level that matches the state of implementation at this moment.

1	The team has made a first orientation on the principles of trauma-informed care.
2	The team has formulated a vision on what trauma-informed care means for its own clients. The vision has been concretized into goals and actions.
3	The team is trained and educated in trauma-informed care.
4	An inventory has been made with every client what signals there are when stress occurs. Clients' preferences and personal styles for reducing stress and tensions are part of this plan and also how a client likes to be approached by staff members in those situations.
	The attitude of team members is aimed at forging a therapeutic alliance with the client.
	An inventory has been made with every client of his strengths and hope giving strategies are formulated
	In the treatment following stabilization treatment of trauma is explicitly given attention to.
5	The team formulates targets every three or six months to remain sharp towards trauma-informed care. A quality improvement team is composed that is in charge of quality projects.
	Total score, when necessary with argumentation: Argumentation

that it is keen on further development and when it has established a way of continuous improvement of professional routines. Detailed information is given which criteria must be met to answer a particular score (Table 4).

Beside the scoring instrument EMOPI encompasses also a format for goal formulation and a format for monitoring/evaluating actions undertaken to realize goals. These formats for planning, monitoring and measuring are tools that are attuned and adjusted to each other. Together they constitute a formative evaluation package of input, throughput and output of information. This benefits enormously the focused effort of realizing better psychiatric care through the implementation of the Engagement Model. Of course the availability of formats for all 12 factors does not mean that all 12 dimensions should be tackled in action plans at the same time. Teams can prioritize a limited number of them and pick others to work on at a latter moment.

Although EMOPI resembles the ROPI in many ways there is one aspect that is different. The scoring in EMOPI is used as a self-assessment scale whereas ROPI is an audit instrument used by an audit team that is composed from outsiders. The expert nurse responsible for scoring EMOPI may be biased because he/she is a member of the same team. A further development of the instrument would therefore be to expand it with instructions and questionnaires for auditors.

Actual Implementation

Wards that participated differed enormously in target population and treatment rationale. The decision which of the 12 factors would become the focus for targeting was not made on central level but on ward level by middle management. As a consequence there was a great degree of diversity. A general tendency was first to give attention to improvements that promised palpable and concrete successes. That's why money was spent on furnishing so called comfort rooms and furniture being renovated on the ward (Figure 2A) [12-14].

Televisions were taken out of the closet to normalize the environment and communicate the message: 'This is a safe environment, so respect it and keep it clean, unmolested and comfortable to stay in', but here differentiation started. Furnishing

a comfort room can be done cheaply and then cost, say € 2,500 or done professionally and cost € 10,000. Different choices were made depending on the management in charge. So for the factor 'Healing Environment' scores varied greatly. This was also caused by large differences in the quality of building environments. Some of the wards were housed in old buildings that were on the list to be demolished and here no or little investment was made for creating a healing environment. Another limitation here came from a shortage of space. There were often not enough rooms to spare for creating comfort rooms, conversation room or family rooms. To change a patient room into a family room for instance would mean that less income can be generated as fewer patients then can be taken in. Opposite interests also led to frustration, for instance when in one division it was decided to close the office on the ward to create more physical presence and less distance, but where the work council vetoed this because it considered it as contributing to more insecurity for personnel (Figure 2B).

We can conclude that there was not much coherence in how the 9 wards went about implementation of the Engagement Model. Even where there was a project structure on institution level and notwithstanding the fact that every ward had assigned an expert nurse to represent the ward in the project meetings, there were huge differences in how things were organized. One department had 3 expert nurses to coach 7 wards and another department had only 2 expert nurses for 8 wards. It did not always become clear who was going to effectuate leadership: the expert nurse, the psychiatrist, the team leader or the manager higher up in the hierarchy. The expert nurses had a more coaching role and had to motivate and convince their team colleagues that certain changes were necessary. They had no decisional power. In one department a steering committee was installed, consisting of the unit manager, the expert nurse and from every team a nurse. This contributed to better results, especially where there were meetings at set intervals, an agenda and a distribution of tasks among committee members.

Although there has been a big kick-off manifestation for which Maggie Bennington, one of the developers of the Engagement Model was invited to come over from the United States, it soon appeared that not everyone was informed about the model and what it meant for professional practice. So, in one care division one was still in the middle of educating everyone about Engagement, while in another division work groups had their first meetings. This caused differences in the speed with which changes could be brought about. In the years that were to follow these differences were to become more prominent due to a whole range of organizational measures. There were budget cuts and personnel got fired and were replaced by flex workers who were new to the Model. Regular personnel had no longer the time and/or energy to participate in work groups and projects. One was busy surviving in the turmoil of great Organizational changes that seemed to reoccur every couple of years, which led some of the staff to become cynical and consider the Engagement Model as one of the trends that probably, will blow over. There were also important shifts in 'leading personnel', the layer in the Organization that one depends on for a smooth transformation of new policies: psychiatrists, team leaders and managers. The psychiatrist who had introduced the Engagement Model left the Organization after one year. Consultation with Murphy and Bennington in the United States did not compensate for lacking leadership. Neither did the project structure as a consequence the theoretical framework of the Engagement Model watered down after 2012, became fragmented as every division picked out whatever

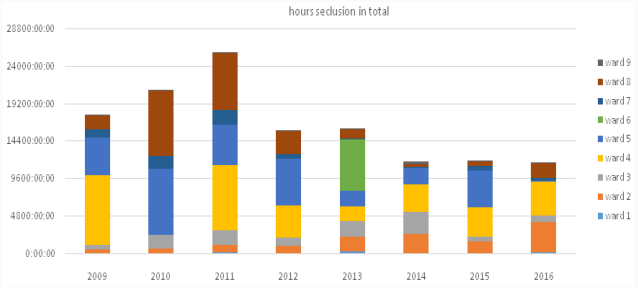

Figure 4: Hours in seclusion over years per ward.

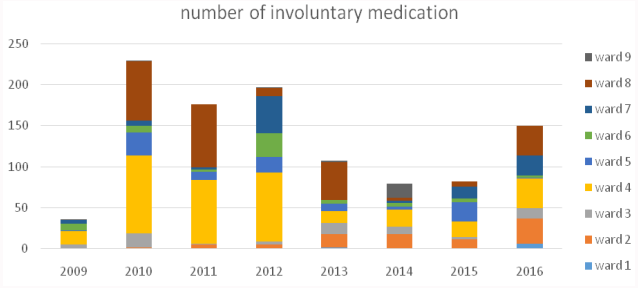

Figure 5: Number of administered enforced medication over time.

suited it best and so it happened that by 2015 it is no longer inspiring and directing care innovation. This is not to deny that still some of its ideas linger on in the minds of staff and that quality of care has been improved over time. From an evaluation survey in 2017 with expert nurses who have coached the project we note that that there is a general feeling that much has been achieved:

"There is much more dialogue with the patient, Seclusion and restraint has been reduced, certainly in duration. When there is no other option than using restraint it is done with more respect for the patient".

At the same time expert nurses signalize that stagnation is looming, the attention is not always focused anymore (expert nurses are not running the project anymore) and there is confusion about what vision is leading (competing visions) on wards that have become dedicated to High Intensive Care.

Methods

To evaluate the effect of the program, the use of seclusion, restraint and enforced medication was assessed by means of the Argus rating scale [11]. This rating scale counts the number of seclusion, restraint and enforced medication incidents over time, next to assessing the number of hours per admission hours. These figures are counted per each 3 months for management feedback.

Results

We will now consider the results in terms of rates of seclusion and restraint. Figure 3 presents the number of incidents over years. Figure 4 presents the development of the use of coercive measures and especially seclusion over time before and after implementation of the Engagement model. Figure 5 shows the number of enforced medication administered. Especially Figure 4 shows a clear decline from 2010 onwards until 2013, but a clear rise afterwards. On the contrast, the number of incidents declined in a continuous decline after. This shows that over time the incidents took more time per

incident. The decline and rise in hours of seclusion is also seen in the numbers of enforced medication. In both figures, the decline is significant between the first and fifth year (chi-square=295.43, p<0.0001 and chi-square=147.56, p<0.001 respectively). Between the sixth and eight year an significant increase may be observed, both in seclusions as well as in numbers of administered enforced medication (chi-square=195.43, p<0.0001 and chi-square=118.72, p<0.001). Investigation of the number of patients secluded per year showed a constant number between 2009 and 2012 around 190 patients followed by a decrease to approximately 130 patients in the years thereafter.

Discussion and Conclusion

The findings of the study show a clear decrease of seclusion use immediately after the Engagement model as implemented. Both adherence scores as the figures on seclusion, restraint and enforced medication were promising upfront, but declined later on. As one may say the Engagement Model suffered from its own success. Target scores were achieved and then the intense focus on change and innovation diminished, especially after ending the project status. Organizational changes and new staff that were no longer introduced to the model also contributed to its loss of momentum. Apparently there is a need for freshening the core philosophical ideas and continued evaluation and improvement. As Blair and Moulton-Adelman [15] stated in an evaluation of the Engagement Model in a Salem Mental health Institute (US), 13 years after implementation: "If over time, staff are not reminded of the rationale for the philosophy of treatment, the edge provided by such awareness, can be lost practice becomes lax about fundamental elements of the model and S/R rates may increase". As we see a significant increase in rates of seclusion and restraint and also of enforced medication after 2013 then the conclusion may very well be that the principles of Engagement Model must be brought to attention again and where other models or approaches (competing visions) have been introduced must be integrated in them.

This perhaps slightly disappointing finding is in line with a number of coercion reduction programs showing sustainability issues [16-19]. Other studies showed clear and sustainable findings [20]. At a nationwide level in the Netherlands seclusion was reduced by 50% in a 5 year follow up [21]. These findings are however based on near to outdated data of before 2013, and because the nationwide register was closed down in 2015 because of patient privacy issues on data sharing, recent data are scarce and anecdotal, or remain at the level of personal communications at conference meetings. Some of the recent studies do, however confirm the finding of the current study, where others show a further decline of seclusion and restraint figures [22,23]. At the level of the hospital studied in the current paper, there is some need for concern. The scant data from other hospitals show to some extent the findings are not unique.

An important issue to deal with in the evaluation of the findings is the steep reduction in bed numbers. At a national level this reduction was 25% between 2010 and 2015, in the hospital under investigation this figure was above 35%. This reduction led to diminish of seclusion facilities from 11 to 5 wards. It may be expected such a concentration of patients needing intensive care to a more limited number of wards may have contributed to an increase in incidents at the wards concerned. This notion is confirmed by the observation that the numbers of seclusions remained to decrease after 2013 (end of project status), together with the number of patients involved, whereas the duration of seclusions showed an increase together with the number of administered enforced medications.

In summary, the findings show that sustainability of good practices is dependent on various external factors some of which were probably not met after termination of the project status of the seclusion reduction program. Studies on long term impact of seclusion reduction programs are scarce, while most are in the context of one or two year follows up of (none) experimental programs. The current study allows a broader scope against the background of change in mental health care in the Netherlands.

Relevance for Clinical Practice

This study shows that there is a need for freshening the core philosophical ideas and continued evaluation and improvement of seclusion reduction programs. However, even so there may be external factors that may fall beyond the scope of the implemented of good practices.

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