1 # Nurses' views highlight a need for the systematic development

2 # of patient safety culture in forensic psychiatry nursing

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Background: Although forensic nurses work with the most challenging psychiatric patients and manifest a safety culture in their interactions with patients there have been few studies on patient safety culture in forensic psychiatric nursing.

Objectives: The aim of this qualitative study was to describe nurses' views of patient safety culture in their working unit and daily hospital work in two forensic hospitals in Finland.

Methods: Data were collected over a period of one month by inviting nurses to answer an open-ended question in an anonymous web-based questionnaire. A qualitative inductive analysis was performed on nurses' (N=72) written descriptions of patient safety culture in state-owned forensic hospitals where most Finnish forensic patients are treated.

Results: Six main themes were identified: 'Systematization of an open and trusting communication culture', 'Visible and close interaction between managers and staff', 'Non-punitive responses to errors, learning and developing', 'Balancing staff and patient perspectives on safety culture', 'Operational safety guidelines', and 'Adequate human resources to ensure safety'.

Conclusions: The findings highlight the influence of the prevailing culture on safety behaviors and outcomes for both healthcare workers and patients. Additionally, they underline the importance of an open culture with open communication and protocols.

Keywords: Patient safety culture, patient safety, forensic psychiatry, psychiatric nursing

INTRODUCTION

Patient safety has been recognized as a key driving force in healthcare and has received

considerable attention from healthcare administrators.[1] Several studies have noted the importance

of safety culture in health care safety, [1,2] and it has been demonstrated that patient safety culture is

related to patient outcomes.[3] The organization's culture, which is formed interactively by the

management, staff, and patients, is a critical patient safety factor in psychiatric care.[4] Despite its

importance, however, implemented interventions frequently fail to address the true sources of

errors and accurately target weak organizational safety cultures.[5]

Psychiatric inpatient-care patient safety studies have focused on near misses[6] and clinical risk

management (CRM). The main CRM-related concerns in the context of mental health are a)

violence and self-destructive behavior (self-harm), b) treatment errors, especially in the process of

therapy, and c) risks associated with mental illnesses.[7,8] In the context of forensic psychiatry,

previous studies have shown that patients' perspectives received insufficient attention during

seclusion/restraint processes[9] and generally were not well-reflected in personnel's perceptions of

safety[10]. In addition, studies on patient seclusion and restraint have shown that systemic efforts to

reduce the use of institutional measures of control can be effective.[11,12,13]

In recent years there has been increasing academic interest in the influence of patient safety

culture on the views of nursing managers and staff members.[4,14,15] Nurses play essential roles in

ensuring patient safety because they account for a large majority of healthcare personnel[16] and are

responsible for ensuring that patients receive safe care in an accident-free environment.[17] Forensic

nurses work with the most challenging psychiatric patients and manifest a safety culture in their

interactions with these patients. Moreover, because of their central roles in safety processes on

their wards, nurses have a unique position that allows them to observe patient safety directly.[18]

However, patient safety culture in forensic psychiatric care has not been studied extensively, so

91   there is a need to characterize existing patient safety cultures in forensic nursing in order to identify

92   opportunities for their development and improvement.

93

94   **METHODS**

95

96   *Aim*

97   The aim of this qualitative study was to describe forensic nurses' views of patient safety culture in

98   their working unit and daily hospital work.

99

100   *Ethics*

101   The Research Ethics Committee of the Hospital District evaluated our study's design to identify

102   potential ethical issues and granted permission for it to be conducted. All participants were given

103   written documentation explaining the study's purpose and that participation was both voluntary and

104   anonymous.

105

106   *Study settings*

107   This study was carried out in Finland, which has two state-owned forensic psychiatric hospitals

108   with 449 beds and approximately 570 members of nursing staff between them. The main function

109   of these mental hospitals is to perform forensic psychiatric evaluations and provide treatment to

110   patients who are violent offenders found not guilty by reason of insanity and those who are too

111   dangerous or difficult to be treated in regional hospitals.[19, 20] These patients represent a highly

112   select group, and nearly all of them suffer from schizophrenia, most often the paranoid form of the

113   disease.[21] The majority of the patients have a history of severe violent behavior and

114   aggressiveness as well as substance abuse problems, which often continue despite regular

115   treatment. The patients' aggressive and suicidal acts are often sudden and unpredictable. [21]

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119   *Data collection and analysis*

120   Data were collected over a period of one month by inviting nurses to answer an open-ended

121   question in an anonymous web-based questionnaire that was created as a part of a larger study on

122   the two Finnish forensic hospitals.[18] The aim of the larger study was to evaluate patient safety

123   culture in state hospitals in Finland based on the Hospital Survey on Patient Safety Culture

124   questionnaire, which was completed (in whole or in part) by 283 nurses. Seventy-two of these

125   respondents answered the open-ended item "Write about your experiences and views on patient

126   safety, errors and reporting of safety incidents in your hospitals". The respondents were free to

127   write as they saw fit about their experiences and views relating to patient safety. Nurses from

128   multiple different wards chose to answer the open question, providing details of their views on

129   patient safety in forensic nursing and related factors. As such, the data cover a wide range of

130   perspectives and the response texts are multi-dimensional. The qualitative descriptive approach of

131   inductive content analysis was used to describe the forensic nurses' individual, subjective and

132   contextual perceptions, experiences and meanings relating to patient safety, and to make

133   replicable and valid inferences about providing safe care in forensic nursing contexts. A stepwise

134   analytical process was adopted in which the author AK initially read each text through several

135   times in order to obtain an overview of the material as whole and select the unit of analysis, which

136   was chosen to be the sentence. The analysis then proceeded from the identification of concrete

137   meaning units to that of sub-themes and finally main themes. [22] This was followed by a discussion

138   between the authors AK and HT to enhance inter-rater reliability and improve interpretative validity.

139   Finally, the results were discussed within the research group in order to further enhance the validity

140   of the analysis. In addition, we followed the COREQ (Consolidated criteria for reporting qualitative

141   research) 32-item checklist for qualitative research[23] involving the analysis and description of

142   complex phenomena including the subtleties and complexities of collected human responses.[24]

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147 **RESULTS**

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149 Six main themes influencing patient safety in forensic psychiatry were identified: 'Systematization

150 of an open and trusting communication culture', 'Visible and close interaction between managers

151 and staff', 'Non-punitive responses to errors, learning and developing', 'Balancing staff and patient

152 perspectives on safety culture', 'Operational safety guidelines', and 'Adequate human resources to

153 ensure safety'.

154 <u>Systematization of an open and trusting communication culture</u>

155

156 The nurses' reflections suggested that an open communication culture and being able to talk about

157 errors gradually improved patient safety culture. However, some of the responses revealed a lack

158 of systemic ways of discussing errors in the hospitals' working units.

159

160 "*People have become more willing to talk about issues as they are, for example by discussing*

161 *errors." "We sometimes do well at objectively discussing errors with coworkers in our unit, but*

162 *practices are very variable."*

163

164 In addition, the nurses highlighted a need for better communication and an open atmosphere at the

165 organization level:

166

167 *"In order to improve patient safety, an open atmosphere that prioritizes developing functions would*

168 *be needed."*

169

170 *<u>Visible and close interaction between manager and staff</u>*

171 The participants generally expressed a wish to interact more closely with managers and other staff,

172 suggesting that this would increase mutual understanding and create a sense of being listened to.

173 It would also improve managers' understanding of nurses' work and prevent provocativeness,

174 bringing a sense of community to the entire hospital.

175 *"…staff should have closer interactions with the management of the work place. This would*

176 *prevent things like misunderstandings and overreactions, and would bring communality and team*

177 *spirit to the entire building".*

178

179 *"There is a lot of friction and mistrust on both sides! The working atmosphere and spirit relating to*

180 *administration are poor".*

181

182 The nurses also wanted the nurse managers to update their knowledge about the reality of forensic

183 nurses' working environment by interacting with nurses in wards. In addition, nurses expected

184 transparent decision making and justifications in general.

185

186 *"… just for a couple of days, come and see what this work at the ward is really like". "It would be*

187 *favorable to have visits to wards, informing us about things and making matters transparent in*

188 *general… Why is it done? …justifications for that".*

189

190 <u>*Non-punitive responses to errors, learning and developing*</u>

191 Forensic nurses expressed a desire to muster the courage to talk about errors and learn from them

192 in their organizations. According to them, there was still a prevalent culture of finding someone to

193 blame and evaluating errors only after something had happened.

194

195 *"We need to abolish the culture of finding the culprit and blaming them when an error occurs, and*

196 *must learn what we can from our mistakes…".*

197 *"… by searching for a solution to the problem of how to avoid a similar incident from being*

198 *repeated".*

199

200 *I think on the whole patient safety notifications are handled well in our hospital. However, "changes"*

201 *often take place in situations "where the error has already occurred" instead of pre-emptively.*

202 The forensic nurses also felt that steps were being taken to promote learning from errors and

203 developing practices as a routine part of professional care, and a new culture of nursing was

204 perceived to be forthcoming. In addition, there was evidence for an increasingly systemic approach

205 to dealing with errors.

206

207 *"… Maybe it will get clearer that the new culture of nursing is coming and leadership will probably*

208 *change there on the side, too."*

209

210 *Balancing staff and patient perspectives on safety culture*

211 Forensic nurses noted that, traditionally, cultures that emphasize safety sometimes emphasize the

212 safety of staff more than that of patients. More attention should thus be paid to patient-oriented

213 work and interacting more closely with patients. However, as of the time of writing their responses,

214 the nurses considered that patient safety and staff security were well balanced and that the safety

215 of all parties was adequately accounted for.

216

217 *"…patients have not been adequately planned for beforehand, and sometimes a patient has*

218 *arrived in the rehabilitation ward in a highly questionable condition".*

219

220 *"I think patient safety is given more attention these days. Previously, occupational safety came first,*

221 *in which case the patient was perhaps left aside a bit… the situation's pretty much evened out now,*

222 *as it should be". "In my opinion, patients should be given a chance to interact more closely with the*

223 *staff …"*

224

225 Some nurses felt that their leaders and managers don´t listen enough to their opinions, and that an

226 increased focus on occupational safety and nurse motivation would increase both patient safety

227 and the nurses' working flexibility.

228

"…leadership could actually listen to and hear our opinions and views, after all, it's us who are with patients here".

"I think that patient safety also includes the occupational safety of staff and their motivation. An attitude of hospital management that supports and motivates staff would also increase patient safety and prevent excessive measures caused by burning out. Discussing and encouraging would probably make things function better and make nursing staff more willing to be flexible as well".

Operational safety guidelines

The nurses stated that forensic patient care guidelines were somewhat unclear, and there was a desire to reduce the number of rules and to have clearer guidelines. They also wished for more collaboration in terms of negotiation between management and staff at the units when making decisions on issues regarding wards. It was suggested that this would increase the extent to which the views of staff are taken into account when evaluating how decided matters work on the wards (compared to the current approach based on one-sided orders from management) and thus influence nurses' work in terms of patient care and safety.

"Guidelines from the house management are often unclear and contradictory, and there are so many of them that it is difficult to remember how each issue must be reported or which procedure must be used. The number of forms is excessive".

"If the management makes decisions on issues regarding wards, it would be good to negotiate with the units on how the decided matter works in the wards in question instead of simply giving orders. This could improve cooperation for both parties and would allow us as practical workers to influence our work".

257   *Adequate human resources to ensure safety*

258   The topic of staff shortages was also prominent in the forensic nurses' written descriptions. Many

259   nurses summarized their views on the level of staff resources and its impact on patient care. The

260   fact that some hospital workers were unfamiliar with their patients was also identified as a factor

261   that could hinder safe forensic patient care. These issues together or separately could create a risk

262   of deviations in care.

263

264   *"Patient safety is endangered by the shortage of staff resources – there is an attempt to take care*

265   *of far too many difficult-to-treat patients with too few staff"…*

266

267   *At times, work is pretty hectic. For a while now, we've had a lot of temporary workers on the unit. In*

268   *particular, at certain times we have to temporarily transfer staff from one unit to another.*

269

270   Regarding the qualifications and competence of nursing personnel, the nurses pointed out that

271   there was an increasing trend for staff positions to be occupied by people with higher academic

272   qualifications.

273

274   *"….the structure of staff positions has been changed to place more emphasis on academic*

275   *qualifications."*

276

277   **DISCUSSION**

278

279   The study identified six themes, each of which reflects some respect in which patient safety culture

280   could be developed and improved throughout the organization and in forensic nursing more

281   generally. Our findings show that there are many aspects of patient safety culture that are common

282   to and important in all healthcare contexts. However, issues relating to human resources and

283   safety guidelines appear to be particularly important in forensic nursing.

284

285   The *systematization of an open and trusting communication culture* was seen as a central factor

286   influencing patient safety. The communication culture in the wards was generally considered to be

287   open but a couple of nurses described an atmosphere of fear in their wards that prevented open

288   discussion. It has been noted previously that a dysfunctional communication culture can

289   compromise patient safety. [4,25,26] In addition, well-functioning communication has been identified as

290   a core competency in mental health care[4]. Psychiatric care and therapeutic relationships rely on

291   the development of effective communication processes,[27] and communication is also the key to de-

292   escalation in psychiatric care.[28-30] It therefore has a direct impact on patient care.

293

294   While the promotion of safety culture is not exclusively dependent on management activities, the

295   forensic nurses strongly desired *visible and close interaction between managers and staff.* This is

296   suggestive of a reactive culture in which safety systems are developed only in response to adverse

297   events and/or regulatory requirements. Such a reactive culture could be reinforced by the trend

298   identified by Vlayen et al.[31], whereby clinicians occupying elevated positions in the institutional

299   hierarchy have more positive safety culture perceptions than staff with lower positions in the

300   hierarchy. This could increase the potential for misunderstandings between managers and staff.

301

302   The forensic nurses also wanted their managers to have up-to-date knowledge of the nurses'

303   working environment. Deficits in managers' knowledge and skills threaten patient safety because

304   managers play central roles in healthcare provision, being responsible for ensuring their staff's

305   competency and for identifying deficiencies and then remediating them through training and

306   education.[32] Management practices strongly influence how staff view patient safety,[33] and

307   interactions with nurses and their working environment increase managers' understanding of

308   nurses' work.

309

310   The study's findings confirmed the importance of *non-punitive responses to errors, learning and*

311   *developing.* Our results showed that elements of a culture of blame were still present, and there

312   was no systematic way of processing errors. However, leaders should view each error as an

313   opportunity for learning rather than seeing those who made mistakes as villains. Finding a balance

314   between the extremes of punishment and blamelessness is the goal of developing a patient safety

315   culture.[34,35] The results presented herein are consistent with the findings of previous studies that

316   have identified reactive cultures[2,36] and suggested that the problems of such cultures can be

317   addressed by learning from and preventing adverse events.[37,38]

318

319   Another factor that emerged was the importance of *balancing staff and patient perspectives on*

320   *safety culture.* This is important because increased patient involvement would improve the quality

321   and safety of care, and is associated with positive health outcomes.[39,40] Greater patient

322   involvement would strengthen patient-doctor and patient-nurse relationships,[41] promote patient-

323   centered care,[37, 42] and improve decision-making processes.[43] Previous studies on patient safety

324   have established that listening to and respecting patients and family members are crucial for

325   effective therapeutic relationships.[44,45]

326

327   Occupational safety and increasing staff motivation would increase also patient safety and staff´s

328   flexibility regarding their work. Low nursing staff levels have previously been associated with lower

329   safety culture scores. [2, 46] However, it should be noted that different views on this issue have been

330   presented: Kohn et al.[47] argue that staff safety can be improved by attending to patient safety

331   whereas Yassi & Hancock[48] argue that patient safety can only be improved by attending to

332   employee safety.

333

334   The respondents also highlighted the importance of *operational safety guidelines* in forensic

335   psychiatric nursing. Nurse managers are responsible for standardizing processes, protocols,

336   checklists and guidelines, establishing ethical protection for employees,[49] and building a framework

337   for cultural patient safety[50]. From the perspective of nurse managers, the role of the organization is

338   to create the basic infrastructure for ethical patient safety that respects human dignity. [50, 51]

339   Vogelsmeier *et al.*[52] suggest the introduction of shared training for managers and staff, focusing on

340 mutual accountabilities regarding patient safety. A need for such training was also identified in this

341 work.

342

343 Our findings are consistent with other studies regarding the need for *adequate human resources to*

344 *ensure safety* in forensic psychiatric care. It has previously been shown that when the availability of

345 attendants is sufficiently high nurses receive consistent support in providing high quality patient

346 care and report increased job satisfaction, which reduces occupational burnout and staff

347 turnover.[53] It is impossible to determine the ideal number of employees in any given case without

348 simultaneously looking at the quality of the work environment and workload,[54] and patients' need

349 for care. However, it has been shown that workplace culture, especially the overarching factor of

350 stress, correlates with the use of supplemental nursing staff and patients´ length of stay,[55] and also

351 with the relationship between hospital system load and patient harm,[56]

352

353 **LIMITATIONS**

354

355 As noted above, this study has some limitations. First, it is based on data gathered via open-ended

356 questions within a web-based questionnaire created for use in a larger study. Of the 238

357 respondents who completed the questionnaire, only 72 described their experiences and views on

358 patient safety culture in their responses to the open-ended question. It is thus possible that the

359 forensic psychiatric nurses who did not answer these questions may have had different

360 perspectives. Each individual's safety experiences are unique, and factors such as traumatic

361 events or issues relating to the working environment may influence respondents' answers. [57,58]

362 However, the data were multifaceted and the forensic nurses' descriptions complemented each

363 other. Therefore, the research data were many-sided and suitable for qualitative analysis.

364

365 It should also be noted that further studies on a wider range of psychiatric care environments and

366 larger populations would be required to generalize the conclusions presented herein concerning

367 forensic psychiatric care, because cultures differ. However, this work provides a robust description

368   of forensic psychiatric nursing in Finland, and its results may be useful in enhancing safety

369   performance in similar contexts in other countries.

370

371   **CONCLUSIONS**

372   This study underlines the importance of an open culture with open communication and protocols.

373   On the basis of its results and the conclusions of earlier studies (e.g. Singer & Tucker[59]), we

374   strongly recommended the adoption of patient safety walk rounds whereby managers spend time

375   on the frontlines of care, discussing with staff and observing their work. Walk rounds are proven to

376   be effective at strengthening safety culture.

377

378   It is essential to maintain an environment and culture that is safe for all patients and staff members.

379   Further research is required to identify how to best bring about collaborative, effective teamwork

380   (with both patients and staff) in forensic mental healthcare and to develop assessment tools for

381   determining the level of human resources required to provide high quality patient care. In addition,

382   there is a clear need to study patient safety from the perspectives of forensic patients because they

383   experience the whole care path and can identify factors in their care that threaten patient safety.

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