Preventive education for nursing students; ergonomic patient handling and connecting communication

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SPRING Starting Strong in Nursing

INTRODUCTION

Nursing students are at risk of physical and mental health problems, such as musculoskeletal complaints (MSC) and psychological distress, contributing to dropout from nursing education. Both distress and MSCs are high and apparently rising in this population (Kox et al., 2022; Bakker, 2022). However, based upon two systematic reviews (Bakker et al., 2020; Kox et al., 2020) evidence based interventions are scarce. Two promising educational interventions were selected.

AIM

Evaluation of the acceptability, demand, implementation, integration, and efficacy of selected preventive educational interventions for nursing students.

PROCESS

Two feasibility studies were conducted. One targets prevention of MSCs by training nursing students in conscious use of ergonomic principles with haptonomic techniques. The other targets prevention of distress due to conflicts or flawed communication, by training students in nonviolent or connecting communication; supporting interpersonal trust-based relationship building. Data was collected from participants and trainers using quantitative and qualitative methods. Feasibility aspects from two frameworks were used, including limited efficacy testing, and measured with pre- and post-training surveys. Reflection reports of students and semi-structered interviews with trainers were analysed using qualitative content analysis.

RESULTS

Both interventions were found feasible for use and integration in a nursing curriculum. The ergonomic patient handling training (n = 21) increased the students' awareness of proper patient handling; a small reduction of MSCs among students in the intervention group is promising regarding the training effectiviness. The connecting communication training was helpful in improving communication skills and dealing with conflict situations of nursing students (n = 24) with patients, relatives, clinical supervisors, co-workers, and faculty staff. Preliminary results of the pretest-posttest survey show significantly improved self-compassion and decreased self-judgement. Empathy and exposure to violence did not change significantly. It remains unclear whether these changes occured as a result of the training. Therefore, a controlled study is recommended.

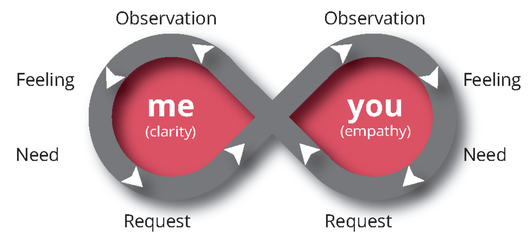
Table 1. Differences between means regarding empathy, self-compassion, and exposure to violence before and after the training (n=24).

	Before training (T0)		After training				
EFFICACY	Mean	SD	Mean	SD	MD*	SD	p-value**
Empathy total (0-4; low-high)	2.21	0.44	2.22	0.45	0.01	0.25	0.92[1]
Perspective taking	2.31	0.67	2.14	0.81	-0.18	0.56	0.13[1]
Fantasy	1.90	1.16	2.01	1.16	0.11	0.61	0.37[1]
Empathic concern	2.47	0.67	2.49	0.61	0.02	0.49	0.83[1]
Personal distress	1.83	0.97	1.77	1.01	-0.06	0.74	0.68[1]
Self-compassion total (1-7; low-high)	**3.77**	**0.97**	**4.10**	**0.95**	**0.33**	**0.71**	**0.03[1]**
Positive scales							
Self-kindness	3.96	1.21	4.20	1.21	0.24	1.11	0.37[1]
Mindfulness	4.13	1.22	4.31	1.22	0.19	1.01	0.38[1]
Common humanity	3.88	1.10	4.29	1.10	0.42	1.09	0.07[1]
Negative scales							
Self-judgement	**4.21**	**1.59**	**3.50**	**1.59**	**-0.69**	**1.50**	**0.03[1]**
Over-identification	4.69	1.52	4.48	1.52	-0.21	1.27	0.43[1]
Isolation	4.46	1.66	4.19	1.65	-0.27	0.90	0.15[1]
Exposure to violence in past two weeks	% (n)		% (n)				
None	79.2 (19)		62.5 (15)				0.473[2]
Occasionally	12.5 (3)		33.3 (8)				
Frequently	8.3 (2)		4.2 (1)				

[1] Paired t-test; [2] Fisher's Exact Test.
* MD = difference between means
** p-value < 0.05 indicates a statistically significant difference

Connecting Communication

Engaged Working & Learning Together



CONCLUSION & RECOMMENDATIONS

Both interventions offer additional value to the nursing curriculum and further implementation is warranted. For effective application of the learned ergonomic and communication skills in the workplace, the underlying principles need to be adopted at the clinical placement setting and at nursing school. Special emphasis on the early prevention of MSCs in nursing students may prevent dropout due to physical complaints at a later stage in the nursing profession.

REFERENCES

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This project is funded by: Regieorgaan SIA · ROTTERDAM UNIVERSITY OF APPLIED SCIENCES · SPRING Living Lab