

RESEARCH ARTICLE

Intervention training of urology healthcare staff to counsel acute care inpatients on smoking cessation: An evaluation study

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Abstract

Aim: To evaluate the differences, following intervention training, in the knowledge, attitudes, role perception, self-capacity and intention of urology staff to counsel inpatients on smoking cessation.

Design: A descriptive evaluation study of intervention training in counselling on smoking cessation. The study was designed following guidance by the Medical Research Council.

Methods: The evaluation was based on a closed-end questionnaire with four time-point measurements from May 2018–December 2019 ($N = 29$ at each time-point). A repeated measure within-subjects ANOVA was conducted to explore the variance in participants' attitudes, role perception, self-capacity and intention to counsel patients regarding smoking cessation. Eta squared and Bonferroni post hoc tests were used to interpret the results.

Results: No change was observed in the research variables after theoretical science-based learning of the smoking hazards and the benefits of cessation. A statistically significant difference was found following procedural knowledge based on training, practical experience and skill development.

KEYWORDS

intervention programme, nurse-led, smoking cessation counselling, urology patients

1 | INTRODUCTION

Smoking is a major risk factor for urologic malignancies such as kidney, bladder and prostate cancer and erectile dysfunction (Sosnowski & Przewoźniak, 2015). Moreover, quitting smoking after a cancer diagnosis has a statistically significant effect on survival, reduces the risk of developing a second cancer and improves the patient's (and their family's) quality of life (Kassim et al., 2020). Studies have found that urology patients had a low awareness of

smoking as a risk factor for their cancer or for other urologic diseases (Khan et al., 2018; May et al., 2018). Thus, smoking cessation counselling among urology patients is essential for reducing urologic diseases and premature death even as a tertiary prevention measure (Lauridsen et al., 2017; Sosnowski et al., 2016). Bjurlin et al. (2013) reported, after one year of follow-up, that urology patients who received brief smoking cessation counselling were 2.3 times more likely to stop smoking than patients who did not receive counselling. In a randomized clinical trial, Lauridsen

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et al. (2022) reported that patients with bladder cancer who received support in the form of a short intervention for smoking cessation before the operation achieved higher successful abstinence from smoking compared to a control group (51% vs. 27%, RR 2.0, CI 1.14–3.51) at 30 days postoperative follow-up. Nevertheless, there are barriers that prevent urology physicians and nurses from adopting the role of smoking cessation counsellor, such as lack of time, knowledge, training and skills, and feeling unqualified to provide smoking cessation counselling (Kemppainen et al., 2013; Sosnowski et al., 2016).

There are a wide variety of smoking cessation programmes in the community and in hospitals (Black et al., 2020). The rate of abstaining from smoking among patients who persist in the follow-up is 20%–22%, depending on the duration of follow-up (Evison et al., 2020). There are several approaches to health change counselling. Numerous studies have confirmed that the motivational interviewing approach to counselling health change behaviour is an effective evidence-based tool for enhancing health promotion among people with addiction behaviour (alcohol, tobacco, gambling, etc.) and several diseases (Lindson-Hawley et al., 2015; Magill et al., 2018; Palacio et al., 2016). Moreover, health promotion interventions, such as counselling for smoking cessation, were found to be effective among patients during acute hospital care (Jones & Hamilton, 2013; Lemhoefer et al., 2017). In addition, smoking cessation interventions among inpatients were found to initiate the smoking cessation process, but this must be continued in the community (Balmford et al., 2014).

2 | THE INTERVENTION TRAINING PROGRAMME

The training programme (and the evaluation study) was conducted in the urology department of a large tertiary hospital in Israel. The urology department contains 24 beds for patients diagnosed with urinary tract diseases and diseases of the male reproductive

system, including cancer. The proportion of male patients is higher than that of female patients. In January 2018, an internal hospital examination revealed that the proportion of smokers among the urology inpatients (20%) was one of the highest in the hospital. With the support of the chief executive officer (CEO) of the hospital, the urology department's nurse educator initiated a pilot programme to train the urology department's healthcare staff as smoking cessation counsellors. The timeline of the training and the evaluation of the programme are described in Figure 1. This was the first nurse-led training programme for healthcare staff in the hospital to promote smoking cessation counselling among inpatients. Until this intervention programme, the hospital focused on implementing national smoking laws. Smoking on hospital premises was prohibited, except in designated locations away from the main entrance. Courses were also conducted for the healthcare staff, aimed at assisting the healthcare staff with smoking cessation.

The training programme and the evaluation study were planned and designed following guidance by the Medical Research Council (UKRI; Moore et al., 2015). The theoretical foundation of the guidance is the Theory of Change approach to designing, implementing and evaluating complex interventions (De Silva et al., 2014). The intervention training programme included four stages (Table 1 and Figure 1) as follows:

2.1 | Stage one: preliminary phase

In April 2018, a collaboration was established between a urology nurse and a family physician from a large health services community. This led to a meeting with the hospital CEO, the nursing manager and the community medical health services manager, to collaboratively establish a smoking cessation programme for the hospital and community health services. Five professional discussions were held, during which two pillars were set. The first was a training intervention programme among urology department staff to provide

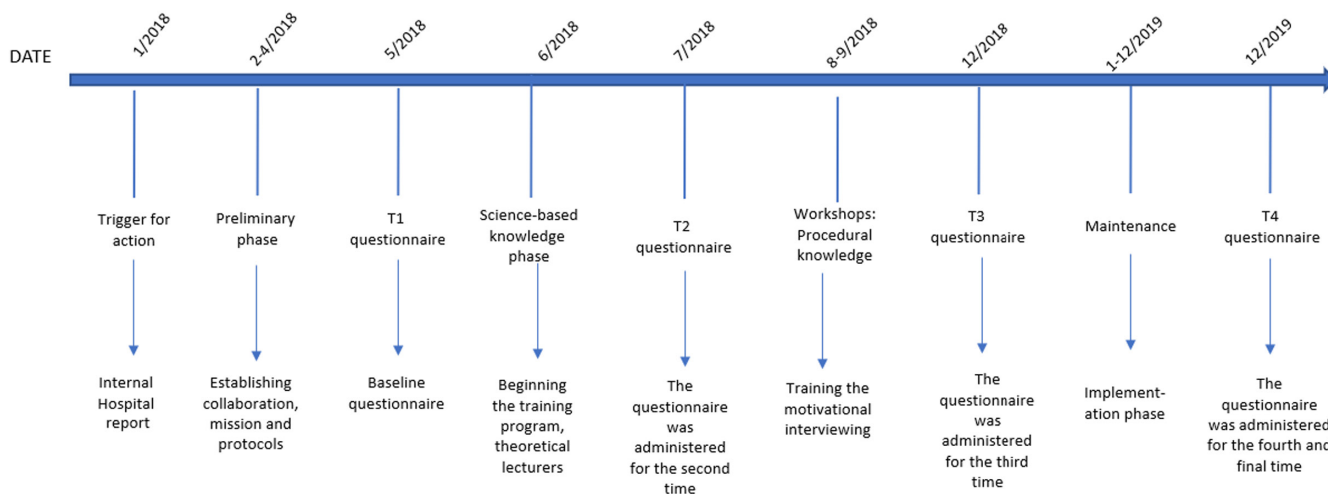


FIGURE 1 Timeline of the programme

TABLE 1 Key functions of the intervention programme and evaluation process

Intervention	Implementation	Impact mechanisms	Outcomes
Training the urology staff in smoking cessation counselling with the motivational interview tool and evaluation of the process.	Two phases of training: (i) science-based knowledge based on frontal lectures and (ii) small group workshops (procedural knowledge) to develop skills in brief smoking cessation counselling using the motivational interview tool	Closed questionnaire on knowledge, attitudes, role perception, self-capacity, and intention to implement smoking cessation counselling. The questionnaire was administered 4 times over 18 months. Face-to-face interview method	Measurement of knowledge, attitudes, role perception, self-capacity, and intention to perform smoking cessation counselling by the urology staff. Comparisons between four measurement points: pre-intervention (T1); after science-based knowledge lectures (T2); after workshops (T3); and 18 months after the beginning point (T4)

Note: Barriers to adopting the role of smoking cessation counselling by urology physicians and nurses. Smoking cessation interventions during hospitalization were found to stimulate the smoking cessation process among patients. There is a lack of knowledge and skills for smoking cessation counselling among urology staff.

Note: The table demonstrates an interpretation of the Medical Research Council (MRC, UKRI) model for the process evaluation of complex interventions. Source: Moore GF, Audrey S, Barker M, Bond L, Bonell C, Hardeman W, et al. Process evaluation of complex interventions: Medical Research Council guidance. *BMJ*. 2015 Mar 19;350: h1258.

smoking cessation counselling to hospital inpatients. The training intervention programme would be implemented among the urology healthcare staff, including the physicians and nurses, and would be accompanied by a quantitative evaluation study. The second pillar was a further follow-up and continuous intervention in the community.

The training programme and the evaluation study protocol were designed. The community follow-up was established, and a patient who gave his consent and contact details would be forwarded to the community clinic for further intervention. Upon discharge from the hospital, the clinic would contact the patient to continue the smoking cessation process. This proactive approach by the health system bridged the gap in the continuum of care between the hospital and the community.

2.2 | Stage two: science-based knowledge phase

The contents of the science-based knowledge phase and the training were planned in light of the Centers for Disease Control and Prevention's recommendations for smoking cessation counselling (Substance Abuse and Mental Health Services Administration (US) & Office of the Surgeon General (US), 2020). The science-based knowledge phase included three hours of theoretical lectures. The lecture subjects were issues related to smoking and involuntary smoking, for example, trends in smoking rates in Israel, economic aspects, community smoking cessation options, harmful effects of tobacco and smoking cessation medication. Other issues were advancing health promotion in hospitals regarding smoking cessation, successful programmes worldwide and the rationale of smoking cessation counselling during hospitalization. The lectures

were held by an MD and educator nurse with expertise in smoking cessation.

2.3 | Stage three: workshops

Workshops were conducted in groups of 10 participants among the entire urology healthcare staff. The workshops aimed to establish acquisition skills and to practice "how to do" smoking cessation as procedural knowledge (Willingham et al., 1989). Each workshop contained two sessions of two hours focused on the following developmental skill areas: (1) dealing with the difficulties of smoking cessation, (2) the motivational interviewing approach to counselling for health changes behaviour and (3) the advantages of promoting smoking cessation counselling during hospitalization. Experts in the motivational interviewing approach moderated the workshops.

2.4 | Stage four: maintenance

A specific field was developed in the patient's computerized medical file documenting their smoking cessation counselling from a physician or nurse and their consent for further community intervention. An information leaflet was issued regarding smoking cessation for urology patients and distributed to all smoking patients and their families. Each staff meeting began with an update regarding the number of smoking cessation counselling sessions carried out, any difficulties raised during the counselling and the proportion of patients who agreed to pass their details to the community clinic.

The current study aimed to evaluate among urology staff following the training programme, differences in attitudes, role

perception, self-capacity and intention to counsel inpatients on smoking cessation.

3 | METHODS

3.1 | Design and participants

Evaluation of the training programme was performed via a cross-sectional study that employed a closed-end questionnaire. The questionnaire was administered to the staff at four time-points over 18 months, from May 2018–December 2019. All time-points included the same 29 participants. All staff members of the urology department ($N = 29$), both nurses and physicians, were eligible to participate in the training programme and in the programme's evaluation process. The sample size for repeated measure within-subjects analysis of variance (ANOVA) was calculated using G*Power software (Faul et al., 2009) with the following parameters: medium effect size $\eta^2 = 0.06$; $\alpha = 0.05$; power = 0.80; number of measurements = 4 with one group. The minimum sample size was 24 participants. The 29 staff members who participated in the study were a satisfactory sample size.

The evaluation study and the reporting adhered to the TREND statement checklist for evaluating behavioural intervention studies (Des Jarlais, Lyles, Crepaz, & TREND Group, 2004; supplementary information).

3.2 | Measurements

The questionnaire for the study was developed by the authors based on a literature review (O'Loughlin et al., 2001; Puffer & Rashidian, 2004). The questionnaire passed a content validity process by three experts: two nurses with expertise in public health and clinical-surgical nursing and a community physician with expertise in smoking cessation. The research team discussed the experts' comments, and changes to the questionnaire were made accordingly. The final questionnaire included 22 items. The participants were asked to score their agreement with the items on a 1–5 scale (1—strongly disagree, 5—strongly agree). Cronbach's alpha was calculated following each time-point of the questionnaire's administration and for each sub-section of the questionnaire. The ranking of the internal consistency is reported below.

The questionnaire measured the following attitudes:

1. *Smoking cessation counselling is undesirable.* Four items described negative attitudes regarding smoking cessation counselling by a physician or nurse. For example, "Smoking cessation counselling may harm the patient-physician/nurse relationship." A higher score indicated a more negative attitude. Cronbach's alpha was 0.73–0.87.
2. *The hospital is a suitable location for health promotion.* Three items described the hospital as an adequate place to promote health

among patients. For example, "The hospital is a suitable location for smoking cessation promotion." A higher score indicated a more positive attitude. Cronbach's alpha was 0.68–0.82.

3. *Perceived self-capacity.* Four items described the physician's or nurse's perception of their knowledge and skills to implement smoking cessation counselling. For example, "I can provide smoking cessation counselling to my patient." A higher score indicated a higher perceived self-capacity to engage in the mission. Cronbach's alpha was 0.72–0.81.
4. *Expand knowledge.* Three items described the willingness of healthcare professionals to expand their knowledge of smoking cessation counselling. For example, "I would like to expand my knowledge regarding smoking cessation medication." A higher score indicated a higher willingness to expand knowledge. Cronbach's alpha was 0.87–0.93.
5. *Role perception.* Two items described the attitudes of the participants regarding their role as counsellors. For example, "It is within my job description to be a smoking cessation counsellor for my patients." A higher score indicated a more positive role perception. Cronbach's alpha was 0.74 at all four times the questionnaire was administered.
6. *Timing of smoking cessation counselling.* Two questions focused on whether acute hospitalization is a suitable time to provide smoking cessation counselling.
7. *Behavioural intention* was measured with a question asking the participants whether they intend to implement smoking cessation counselling for their patients during hospitalization. A higher score indicated a higher intention to implement the counselling.

The questionnaire also asked for personal details, including gender, profession (physician/nurse), seniority, lifestyle (maintaining/not maintaining a healthy lifestyle) and smoking status (never a smoker/former-current smoker).

3.3 | Data collection

Data were collected at four time-points throughout 18 months, as follows (Figure 1):

The questionnaire was first administered two weeks before the training programme began (T1). The questionnaire was administered for the second time one month after the last theoretical lecture (T2). Three months after the workshops ended, the questionnaire was administered for the third time (T3). Eighteen months after the beginning of the training programme, the questionnaire was administered for the fourth time (T4). Data were collected by a face-to-face interview with each participant by one of the research teams.

3.4 | Analysis

Descriptive statistics were used to describe the participants' characteristics (mean and standard deviation). A repeated measure

within-subjects ANOVA was conducted to determine the presence of statistically significant differences in participants' attitudes, willingness to expand their knowledge, role perception and self-abilities, and in their intention to provide counselling regarding smoking cessation to acute care inpatients over the four time-point measurements (T1–T4). Data were normally distributed, as assessed by histogram plot, scatterplot and normal P–P plot of the scores at each time-point, and by the Shapiro–Wilk test ($p > .05$). Multicollinearity was checked with the parameters of correlations. No correlation was higher than $r = 0.56$, which suggested no multicollinearity between the variables. Eta squared (η^2) was calculated as the effect size. Bonferroni post hoc test was used to detect statistically significant differences between the four time-points (T1–T4) (Field, 2013). p -values of $< .05$ were considered statistically significant. All the statistical analyses were conducted using SPSS version 25.

3.5 | Ethical considerations

The training programme received the approval of the hospital's directors. The evaluation study was approved by the hospital's Helsinki committee with the exemption of informed consent. The participants received an explanation of the evaluation study at T1. They agreed to participate in the entire evaluation study. Anonymity was assured.

4 | RESULTS

4.1 | Participants' characteristics

The entire healthcare staff ($N = 29$) participated in the training programme: 51.7% nurses and 48.3% physicians. The mean age was 42.7 years ($SD = 9.50$), with a mean of 12.48 ($SD = 3.51$) years of

seniority. All the nurses had an academic degree. Eighteen participants (62.1%) reported that they maintained a healthy lifestyle, and 31% of the participants reported that they were current smokers (Table 2).

4.2 | Knowledge, attitudes and intention to provide smoking cessation counselling

The participants' willingness to expand their knowledge and attitudes, role perception, self-capacity and intention to provide counselling regarding smoking cessation were measured at four time-points (Table 1). The analysis revealed statistically significant variance as follows (Table 3):

4.2.1 | Smoking cessation counselling is undesirable

The mean scores for the participants' negative attitudes regarding smoking cessation counselling increased from T1 to T2 and then decreased at T3 and T4 (2.47 ± 0.83 ; 2.56 ± 0.86 ; 2.33 ± 0.87 ; 1.92 ± 0.69 , respectively). The decrease was statistically significant only from T2 to T4 ($F = 3.84$, $p = .009$), with a moderate effect size ($\eta^2 = 0.12$). This means that the negative attitudes regarding personal smoking cessation counselling were significantly lower in the final measurement compared to the programme's second phase.

4.2.2 | The hospital is a suitable location for health promotion

The mean scores for the participants' perception of the hospital's role in promoting health increased consistently from T1 to T4 (2.97 ± 0.70 ; 3.16 ± 1.00 ; 3.88 ± 0.74 ; 3.98 ± 0.74 , respectively). The

Variable	N (%)	M (SD)	Min-max
Gender			
Male	11 (37.9)		
Female	18 (62.1)		
Profession			
Physician (novice+ senior)	14 (48.3)		
Nurse	15 (51.7)		
Lifestyle			
Healthy	18 (62.1)		
Not healthy	11 (37.9)		
Current smoker			
Yes	9 (31.0)		
No	20 (69.0)		
Age (years)		42.7 (9.50)	28–65
Seniority (years)		12.48 (3.51)	1–38

TABLE 2 Participants' characteristics ($N = 29$)

increase was statistically significant from T1 to T3 and T4 ($F = 11.11$, $p < .001$) and from T2 to T3 ($p < .01$) and T2 to T4 ($p = .002$), with a medium effect size ($\eta^2 = 0.28$). No difference was found from T3 to T4. This means that the perception of the hospital's role in promoting health was significantly higher in the final measurement compared to the beginning of the programme.

4.2.3 | Perception of self-capacity

The mean scores for the participants' perceived self-capacity regarding smoking cessation counselling increased from T1 to T4 (2.20 ± 0.88 ; 2.81 ± 0.81 ; 3.69 ± 0.80 ; 3.63 ± 0.72 , respectively). The increase was statistically significant from T1 to T3 and T4 ($F = 24.55$, $p < .0001$) and from T2 to T3 and T4 ($p = .001$), with large effect sizes ($\eta^2 = 0.47$). No difference was found from T3 to T4. This means that the perceived self-capacity for smoking cessation counselling was significantly higher in the final measurement compared to the beginning of the programme.

4.2.4 | Timing for smoking cessation counselling

The mean scores of the participants' opinions on the best timing for counselling on smoking cessation during acute hospitalization increased consistently from T1 to T4 (1.79 ± 0.81 ; 1.97 ± 0.75 ; 2.65 ± 0.55 ; 3.72 ± 0.59 , respectively). The increase was statistically significant from T1 to T3 and T4 ($F = 10.83$, $p < .0001$), with a large effect size ($\eta^2 = 0.48$). This means that the participants thought that counselling on smoking cessation should be conducted during hospitalization at the final time-point significantly more than they thought at the beginning of the programme.

4.2.5 | Behavioural intention

The mean scores for the participants' behavioural intention to provide smoking cessation counselling increased from T1 to T4 (2.53 ± 0.88 ; 2.57 ± 0.84 ; 3.64 ± 0.56 ; 3.64 ± 0.82 , respectively). The increase was statistically significant from T1 to T3 and T4 and from T2 to T3 and T4 ($F = 16.93$, $p < .0001$), with a large effect size ($\eta^2 = 0.59$). No difference was found from T3 to T4. This means that the participants' intention to implement smoking cessation counselling was higher in the final measurement compared to the beginning of the programme.

No statistically significant differences were found in "Expand knowledge" and "Role perception" measures throughout T1-T4 (Table 3).

5 | DISCUSSION

The current study aimed to evaluate an intervention programme for the healthcare staff of a urology department regarding them

providing smoking cessation counselling to their hospitalized patients. The evaluation study was performed at four time-points over 18 months. The findings revealed that in some of the measures examined, there was a statistically significant change by the end of the intervention compared to the beginning of the intervention programme.

The main finding indicated a significantly higher staff's behavioural intention to provide smoking cessation counselling at the final measurement compared to the beginning of the programme. There was no difference in behaviour intention between T1 and T2, but a clinically important difference between T3-T4 compared T1-T2, meaning that scientific-based knowledge was not sufficient to cause the staff to change their behaviour. Only after undergoing training in procedural knowledge and the motivational interviewing approach for smoking cessation counselling did the staff realize the effectiveness of a friendly approach to providing the counselling. As mentioned above, a comprehensive intervention was implemented also between T3 and T4, including active counselling with documentation in the patient's file, an information leaflet and a continuity of care in the community setting. Accordingly, it can be assumed that these interventions also contributed to the increase in cooperation and willingness of the staff to provide smoking cessation counselling to their hospitalized patients. Evaluation studies of smoking cessation training among healthcare professionals show an increase in knowledge, attitudes and self-efficacy to deliver smoking cessation counselling following training, but no long-term evaluation was conducted (Hasan et al., 2019; Nitturi et al., 2021).

The participants' perceived self-capacity, meaning that they felt that they had the knowledge and skills to provide smoking cessation counselling, increased significantly from one measurement time-point to the next. This finding suggests that the staff internalized the importance of their impact on motivating patients to stop smoking, even during acute hospitalization. These results corroborate those of other studies. Puffer and Rashidian (2004) reported that nurses who worked with coronary heart disease patients in community clinics had a stronger intention to counsel their patients regarding smoking cessation, according to the guidelines, if they felt control and confidence in their ability to follow the guidelines (Puffer & Rashidian, 2004). Urologists trained to counsel for smoking cessation were more likely to counsel their patients and felt more qualified for this task compared to urologists who did not have such training (Bjurlin et al., 2010). The same findings were reported in recent research (AIMulla et al., 2021). In the current study, knowledge courses and training, and implementing the skills, led to higher actual counselling behaviour among the urology staff. Notably, at the same time, negative attitudes regarding personal counselling decreased at the end time-point measurement compared only to the second time-point. It can be assumed that providing information concerning the importance of smoking cessation counselling, without providing tools and training in implementation, may create a state of increased negative attitudes, as we found in the current study.

We found no statistically significant difference in the urology staff's perception of their role as counsellors. At the last measured

TABLE 3 Variance in attitudes, knowledge, perception of self-capacity, role perception, and behavioural intention to implement smoking cessation counselling over the time of the intervention

Variable	Tests of within-subject effects Sphericity assumed				T1 M (SD)	T2 M (SD)	T3 M (SD)	T4 M (SD)	Bonferroni post hoc tests	Eta squared
	F	p								
Smoking cessation counselling is undesirable	3.84	.009	2.47 (0.83)	2.56 (0.86)	2.33 (0.87)	1.92 (0.69)	1.92 (0.69)	T4 > T2**	0.12	
The hospital is a suitable location for health promotion	11.11	.0001	2.97 (0.70)	3.16 (1.00)	3.88 (0.74)	3.98 (0.74)	3.98 (0.74)	T3 > T1*** T4 > T1*** T3 > T2** T4 > T3**	0.28	
Perceived self-capacity	24.55	.0001	2.20 (0.88)	2.81 (0.81)	3.69 (0.80)	3.63 (0.72)	3.63 (0.72)	T3 > T1*** T4 > T1*** T3 > T2** T4 > T2**	0.47	
Expanded knowledge	0.03	.49	3.12 (1.36)	2.85 (1.18)	3.20 (0.74)	3.24 (0.76)	3.24 (0.76)	—	0.03	
Role perception ^a	2.00	.12	3.21 (1.08)	3.38 (1.26)	3.62 (0.77)	3.83 (0.80)	3.83 (0.80)	—	0.06	
Timing for smoking cessation counselling	10.83	.0001	1.79 (0.81)	1.97 (0.75)	2.65 (0.55)	3.72 (0.59)	3.72 (0.59)	T3 > T1*** T4 > T1***	0.48	
Behavioural intention	16.93	.0001	2.53 (0.88)	2.57 (0.84)	3.64 (0.56)	3.64 (0.82)	3.64 (0.82)	T3 > T1*** T4 > T1*** T3 > T2** T4 > T2**	0.59	

^aNo statistically significant differences were found in the role perception of smoking cessation counselling throughout the survey, but changes in attitude were statistically significant and linear ($p < .05$).
* $p < .05$; ** $p < .01$; *** $p < .001$.

time-point, this score was higher than at the beginning but the change was not statistically significant. Studies show that physicians and nurses, perceive their role as health promoters but have various barriers to implementing this role, particularly in a hospital setting (Johansson et al., 2009; Whitehead, 2009, 2018). In addition, healthcare staff have a broad interpretation of health promotion, possibly leading to a reduced meaningfulness of the concept and difficulties of practical implementation (Afshari et al., 2019). Our findings suggest that even though the staff showed no statistically significant difference in their perceived role as health promoters, they certainly changed their behavioural intention to be more inclined to provide smoking cessation counselling to their patients. The findings indicated that this happened only after training and experiencing the motivational interviewing approach.

The common concept whereby hospitals are designed with a primary focus on treating diseases and providing relief to patients' illnesses rather than being a place for health promotion (Johnson & Baum, 2001; Ziglio et al., 2011) is well reflected in the attitudes of the participants at the beginning of the current study. This concept positions health promotion practices at the margins of the hospital's priorities (Lee et al., 2013). At the beginning, the healthcare staff scored low in perceiving the hospital as a suitable location for health promotion. After the programme was run and the participants had experienced smoking cessation counselling skills, their perception of the hospital as a suitable location for health promotion significantly increased. Hospital managers that aspire to have their hospitals become health-promoting institutions need to change and integrate health promotion processes into their physicians' and nurses' clinical care (Johansson et al., 2009; Lee et al., 2013; Štěpánková et al., 2020). Moreover, a previous study found that organizational characteristics (such as hospital size) may constitute mediating factors for implementing smoking cessation counselling by healthcare staff (Nitturi et al., 2021).

In the current study, it seems that the health promotion practice of smoking cessation was well established, and the healthcare staff's professional outlook was significantly changed. Johnson and Baum (2001) classified the approach of designing ad-hoc health promotion programmes as "doing a health promotion project" approach. This approach may serve as a catalyst towards a commitment to being a health-promoting hospital (Johnson & Baum, 2001; Tveiten, 2021).

Another perception that significantly increased throughout the intervention among the participants was that acute hospitalization is a window of opportunity to promote a healthy lifestyle including consulting patients on smoking cessation. This is in line with hospitalization providing a unique opportunity for a "teachable moment" to help cancer patients cease smoking (Jones & Hamilton, 2013) and to help preoperatively those undergoing surgical interventions to also cease smoking (Berlin et al., 2015). Indeed, studies have found a high smoking cessation rate among patients involved in hospital programmes for smoking cessation; up to 65% at the discharge point (Gritz et al., 2006). All these findings suggest the need to improve efforts and emphasize the importance of training physicians and

nurses to provide smoking cessation counselling for their hospitalized patients.

6 | LIMITATIONS

The main limitation of the current study regards the small sample, consisting of only one facility, although the entire healthcare staff of the department participated in this training programme and in the evaluation study. Also, the study used a questionnaire that was developed specifically for this study, with limited external validation. Therefore, only limited generalization of the findings is possible. Another limitation regards the fact that we measured attitudes and behavioural intention to provide smoking cessation counselling and not the actual effectiveness of the training programme after it had been completed. Although during T3-T4 the staff began to implement the counselling, it is essential to follow up the smoking cessation counselling long-term in order to see if the achievements of the training programme are maintained.

7 | CONCLUSION

Science-based knowledge alone does not seem to encourage staff to perform counselling. Only after training provides operative and easy-to-implement tools such as the motivational interview, and the staff have gained more experience and skills in counselling, is there a statistically significant positive impact on their intention to continue implementing counselling and a statistically significant change in their perception of the hospital being a suitable location to promote health and assist patients to cease smoking. Indeed, physicians and nurses understand that smoking cessation counselling is an integral part of their professional role and attitudes that are against such counselling are declining. This means that team attitudes and behaviours change and develop positively over time.

8 | RELEVANCE TO CLINICAL PRACTICE

The present study highlights the need to train healthcare staff as health promoters and particularly as smoking cessation counsellors for hospitalized patients. Implementing health promotion education among nurses and physicians is a long complex process that requires vision and consistency. The nursing leadership and policymakers that wish to adopt a worldview in which nurses and physicians are health-promoters can begin the process through sporadic health promotion programmes, such as training the urology department staff to provide smoking cessation counselling for their patients during hospitalization. The process of training healthcare staff cannot be satisfied only by providing knowledge. Extensive training is required, including skill development, collaboration (which the whole staff shares) and adherence to the goal. It is important to avoid drawing a conclusion only after the

knowledge training phase. It is evident that only with experience and skill development, the staff's perception of their self-capacity to be a smoking cessation counsellor was evolving. Team attitudes and behaviours change and develop positively over time. It is important to develop clinical guidelines to support the staff in providing smoking cessation counselling as a secondary and tertiary level health prevention tool. Understanding that healthcare staff skills evolve over time is essential to success.

AUTHOR CONTRIBUTIONS

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Ronit Tsemach, Anat Enden-Izhaki and Anat Amit Aharon. The first draft of the manuscript was written by Anat Amit Aharon, and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

FUNDING INFORMATION

none.

CONFLICT OF INTEREST

The authors declared no conflict of interest for this article.

DATA AVAILABILITY STATEMENT

Data available on request from the authors

ETHICAL APPROVAL

The study was approved by the hospital's Helsinki committee with the exemption of informed consent.

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