

The feasibility of a multidisciplinary nurse-led service for the Nipple-Areola Complex tattooing after breast cancer surgery

Monica Guberti¹, Martina Torreggiani¹, Deborah Maselli^{1,2}

¹ AUSL-IRCCS of Reggio Emilia, Italy; ² University of Modena and Reggio Emilia, Italy

Introduction

The Nipple-Areola Complex (NAC) tattooing is a safe, nonsurgical reconstruction technique that restores the skin's appearance by introducing resorbable pigments into the dermis [1]. The service is not always easily accessible for women, considering its significant costs [1]. The project aims to implement a nurse-led clinic that provides this intervention free of charge. We report on the development and piloting of this service.

Methods

The Medical Research Council's framework for developing complex healthcare interventions was followed [2]. According to the results of a literature review (phase 1.a) and the context analysis (phase 1.b), an initial intervention was planned (phase 1.c). The plan was tested in a small-scale pilot (phase 1.d). A mixed-method study will evaluate the implementation of this intervention (phase 2).



Figure 2. Materials necessary for the medical tattooing with dermographer



Figure 3. Example of personalization of NAC color and shape

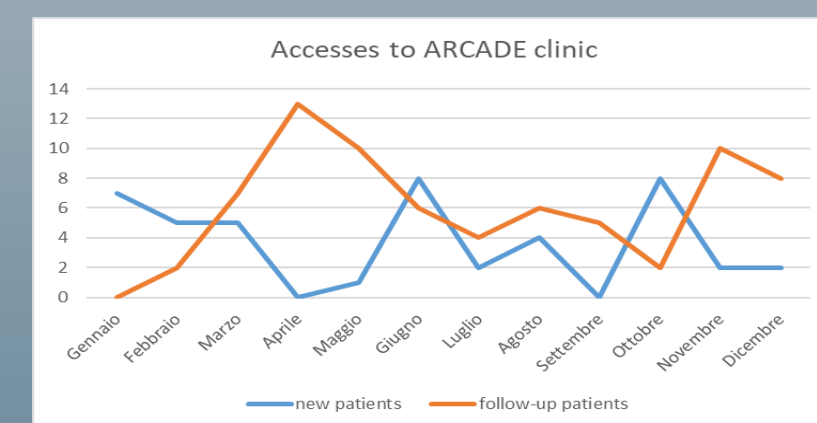


Figure 4. numbers of dermopigmentation activity

Results

The Breast Unit and the Research departments were engaged; three nurse-tattooists were selected; the informative material was created and shared with patients, families and local associations, involving them actively. Finally, the setting and the materials were defined. A monthly schedule of activities was set: patients with the indication for NAC tattooing were contacted by the nurse case manager. Each treatment involves 3-4 sessions, 30-40 days apart, in an ambulatory setting. It consists of NAC shaping and tattooing with a dermographer and sterile needles.

The "ARCADE" clinic started its activities in January 2023: 44 women completed the treatment successfully in one year. The activities varied according to new requests and the follow-up sessions (N = 73). 124 tattoos were performed on 51 planned afternoons. The cost of the materials was estimated at 50 euros for each one-hour tattoo. One minor complication (local erythema) occurred: the procedure was immediately interrupted, and the patient was referred to the dermatologist.

Conclusion

Implementing free-of-charge multidisciplinary nurse-led clinics might provide this treatment with reduced cost and waiting time, ensuring patient safety and quality of life.



Figure 5. NAC before and after the tattooing

References

- [1] Gava, A. et al. Dermopigmentation of the nipple-areola complex in a dedicated breast cancer centre, following the Treviso Hospital (Italy) LILT model. Ann. Ist. Super. Sanità. 2020; 56(4) 444-451. https://doi.org/10.4415/ANN_20_04_06.
- [2] Skivington K. et al. A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. BMJ. 2021 Sep 30;374:n2061. doi: 10.1136/bmj.n2061.

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Key stages of the intervention

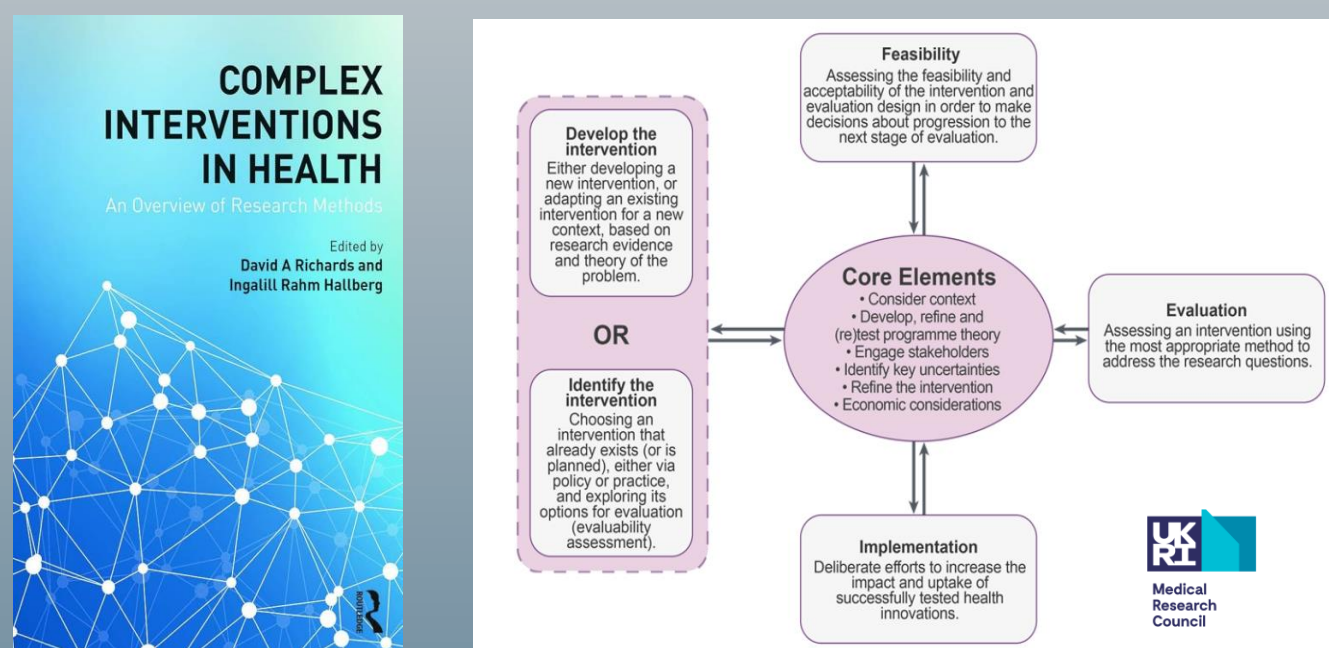


Figure 1. Complex interventions methodology from Skivington K. et al. [2]

