

Implementation of an eating disorder screening and care pathway in a general mental health inpatient service

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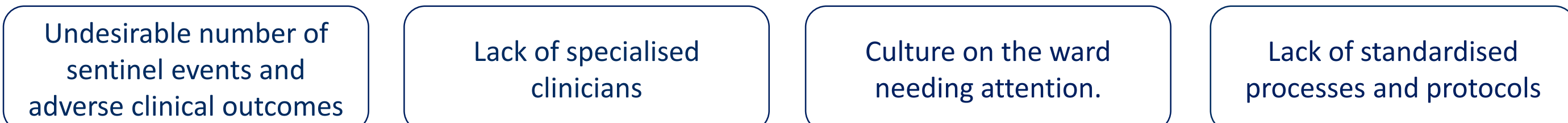
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Background

Eating disorders (EDs) frequently coexist in people with other mental health (MH) conditions, with research suggesting that comorbid psychiatric conditions are present in approximately 60-80% of individuals with EDs^{1,2}. Despite this common co-occurrence, studies consistently show that EDs often go undetected and untreated³. General MH wards provide an opportunity to identify and treat consumers with EDs or disordered eating behaviours (DEB) and concurrent MH conditions.

Epworth Clinic (part of Epworth Healthcare, Melbourne, Australia) is a 63 bed MH service which provides inpatient treatment delivered by a multidisciplinary team committed to the provision of comprehensive, recovery-orientated care. Epworth Clinic admits consumers experiencing ED/DEB to the general MH ward. A needs analysis examining ED/DEB assessment and management highlighted a number of gaps and limitations of the service offering at Epworth Clinic. These included;



This resulted in a lack of detection and treatment of ED/DEB for consumers with concurrent MH disorders within the inpatient unit. Responding to these gaps, a dedicated team sought to implement a whole-of-unit, innovative model of care, to better support consumers and clinicians.

Aim

To implement a standardised, evidence-based screening and care pathway, alongside a staff training program, to improve identification and treatment of inpatients with ED/DEB on a general MH ward.

Methods

Study design

A multiple method before and after study design. The implementation was conducted under routine clinical practice conditions, from 1st August - 30th October 2021, outcomes were compared to an historical cohort from 1st August - 30th October 2019. Ethical approval was granted by Monash Health Human Research Ethics Committee (RES-21-0000-314L) and Epworth Healthcare Ethics Committee (EH2020-663). The study design was informed by evidence based guidelines for the treatment of ED/DEBs^{4,5,6} and guided by the RE-AIM framework⁷ and Revised Standards for Quality Improvement Reporting Excellence (SQUIRE 2.0)⁸ for reporting.

Implementation

Implementation of the multi-faceted intervention was undertaken in three stages.

- 1. Development of an evidence-based care pathway** for screening, assessment and management of comorbid ED/DEB. Based on best practice guidelines for medical and inpatient management of adult EDs.^{4,5,6}
- 2. Implementation of a staff training program**
All permanent nursing and allied health staff employed on the inpatient MH ward plus intake staff were provided with mandatory training with modules 1-3. Those directly involved in the facilitation of supportive meal therapy (SMT), a more specialised subgroup, also completed module 4.

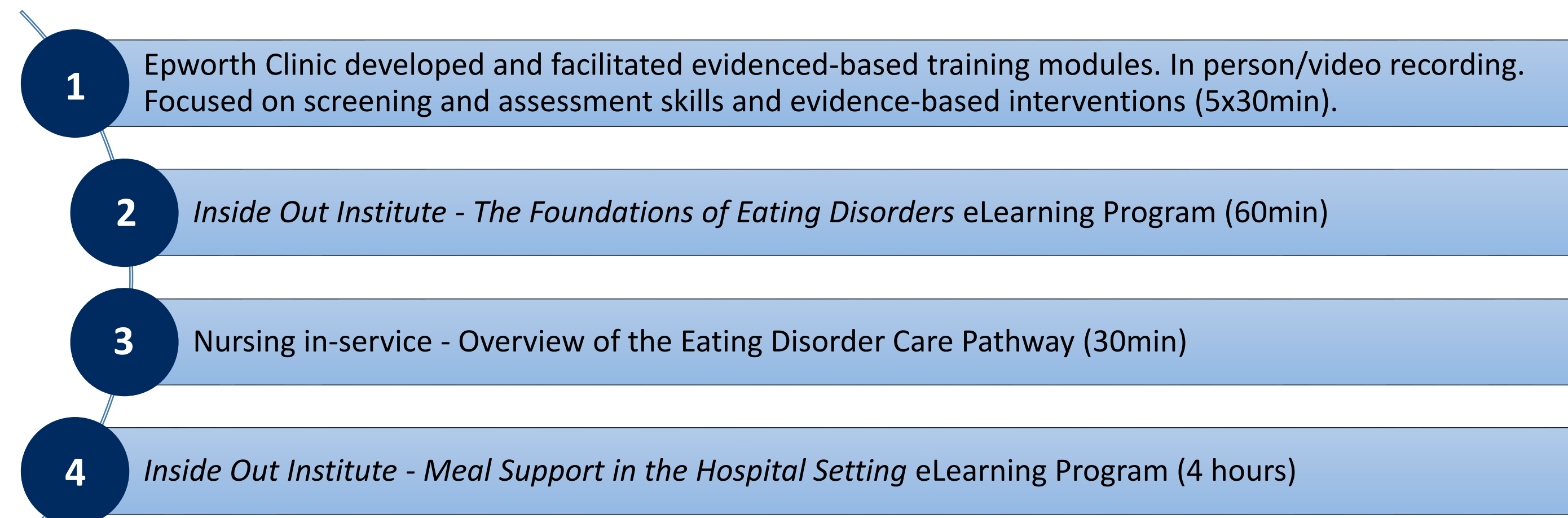


Figure 1: Staff training program - summary of modules 1-4

3. Implementation of the care pathway

All consumers admitted to Epworth Clinic had pre-admission screening using the SCOFF questionnaire⁹, which was embedded into a pre-existing intake assessment form. The consumers' treating team (including nursing, psychiatry and dietetics) were notified of a score ≥ 2 prior to admission, which resulted in an automatic referral to dietetics.

Inpatient consumers with a diagnosis of Anorexia Nervosa (AN), Bulimia Nervosa (BN), Other Specified Feeding or Eating Disorder (OSFED) or significant DEBs, had clinical care provided as per the care pathway. Clinical care activities included standardised monitoring of biochemistry, postural physical observations, fasting and post-prandial blood glucose levels, processes for measuring weight, and nutritional or electrolyte supplementation. It also involved utilisation of the *Eating Disorders Support Plan* to ensure the team and consumer had aligned goals and agreed management plan. The care pathway could be individualised at any point if clinically indicated.

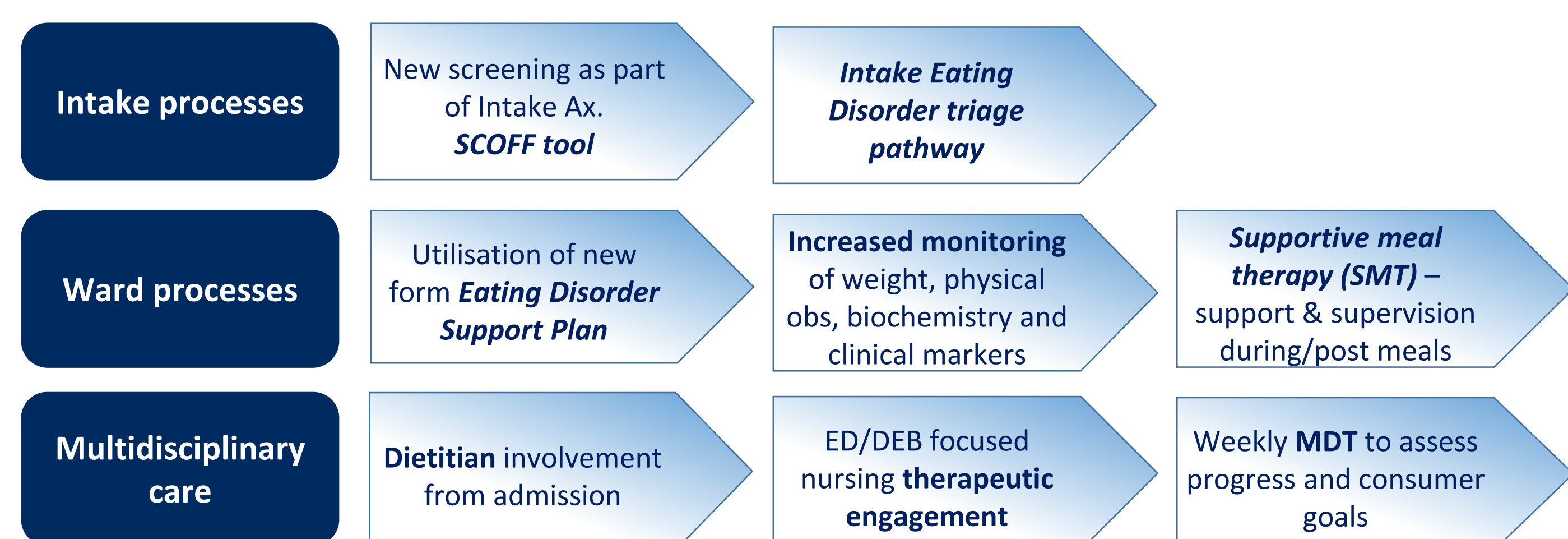


Figure 2: Care pathway summary

Evaluation

Mixed method evaluation, including process and impact outcomes, was informed by the RE-AIM framework⁷. This included medical and administration record audits for SCOFF screening, ED/DEB identification, referral/triage process, implementation of care pathway components and limited health outcomes (sentinel events, irregular biochemistry, blood pressure). Administration records and staff surveys recorded education attendance and perspectives on training outcomes.

Results

Staff training program

50 health professionals completed the staff training program modules 1-3, 38 completed modules 1-4 (subgroup). Pre and post training evaluation showed improvements in feeling supported in this clinical area (45% vs 79%) and application of SMT skills (61% vs 86%).

Care pathway implementation

Process and implementation data were compared for three-month periods pre (2019, $n=348$) and post-implementation (2021, $n=284$).

Admission characteristics	ED/DEB identified (n=39)	No ED/DEB (n=309)	p-value
Age, mean (SD)	35.0 (13.4)	51.8 (15.5)	< .001
BMI, mean (SD)	24.1 (5.5)	29.4 (5.5)	< .001
Female sex, n (%)	38 (97.4%)	188 (60.8%)	< .001
Comorbid personality disorder Dx, n (%)	15 (38.5%)	37 (12.0%)	< .001
Length of hospital stay, mean (SD)	21.1 (21.9)	13.6 (14.9)	.034

Aug – Oct 2019

Admission characteristics	ED/DEB identified (n=39)	No ED/DEB (n=309)	p-value
Age, mean (SD)	38.3 (13.7)	52.4 (14.8)	< .001
BMI, mean (SD)	25.8 (6.7)	30.8 (7.5)	< .001
Female sex, n (%)	43 (87.8%)	142 (75.5%)	< .001
Comorbid personality disorder Dx, n (%)	12 (24.5%)	18 (7.7%)	.001
Length of hospital stay, mean (SD)	22.8 (22.2)	12.5 (11.1)	.003

Aug – Oct 2021

Table 1. Admission characteristics pre and post implementation

Screening with the SCOFF questionnaire

Post-implementation, SCOFF screening occurred in 94.7% of admissions and scores ≥ 2 ($n=40$) were significantly correlated with ED/DEB ($OR=35.2$, $p<.001$). The odds of identifying significant DEB (potentially undiagnosed ED) were 3.1 times greater ($p=0.003$).

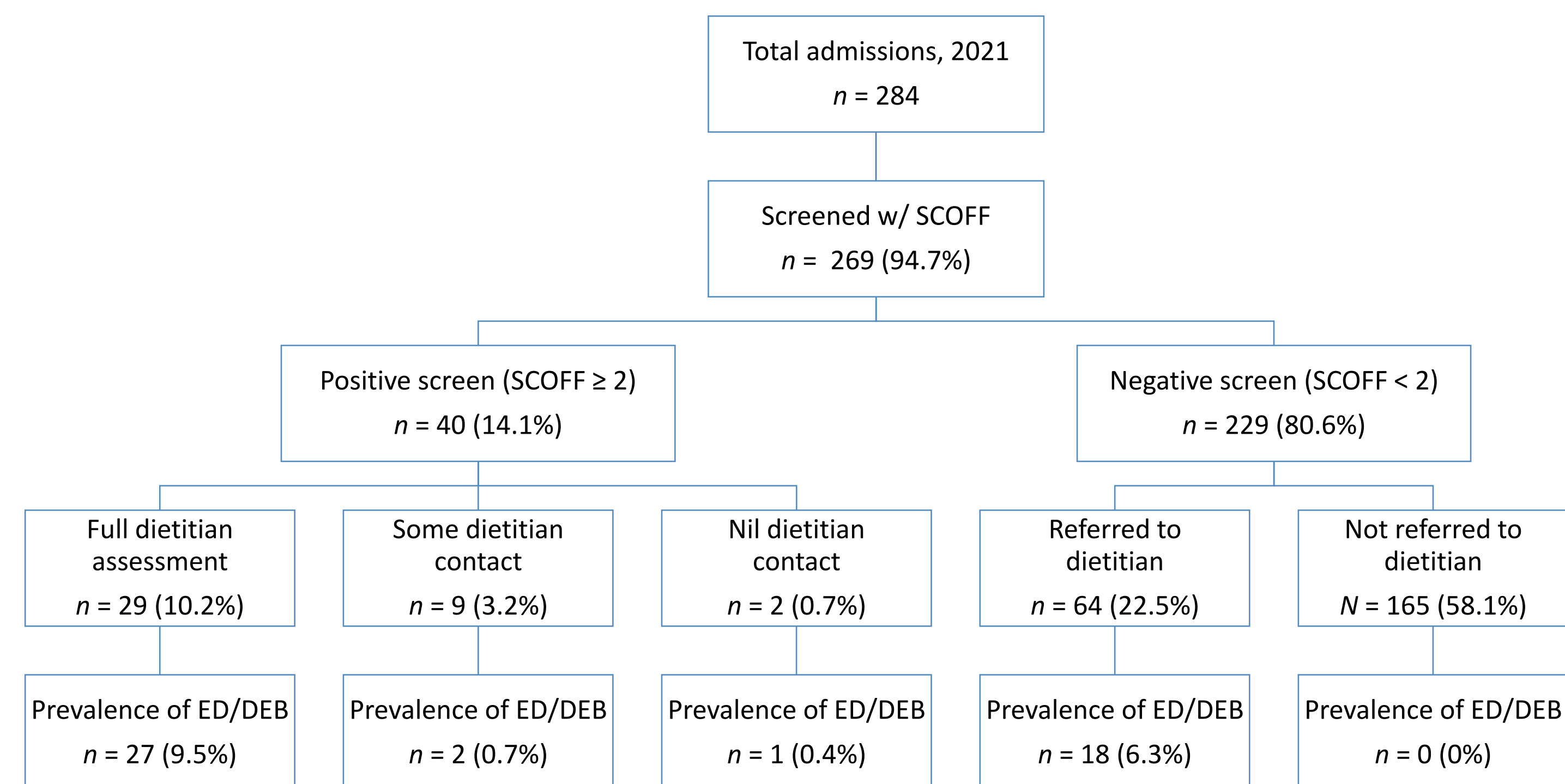


Figure 3. Screening for ED/DEB with the SCOFF questionnaire (2021)

Care pathway and clinical care activities

Regression analyses compared the clinical care activities elements pre and post implementation (table 2). Post-implementation period demonstrated significantly greater odds of being identified to have DEB ($OR 3.1$), being referred to a dietitian ($OR 2.5$; $p<.001$), and receiving written dietitian meal plans ($OR 2.7$; $p=0.044$). Non significant differences were found with ED identification during admission screening, receiving a verbal dietitian meal plan, or receiving SMT.

Care activities	Pre-implementation, 2019 (n = 348)	Post-implementation, 2021 (n = 284)	Odds ratio	95%CI	p-value
Admission screening					
ED identified	28 (8.0%)	25 (8.8%)	1.1	0.6 – 1.9	.733
Significant DEB identified	10 (2.9%)	24 (8.5%)	3.1	1.5 – 6.6	.003
Treatment					
Referral to dietitian	69 (19.8%)	109 (38.4%)	2.5	1.8 – 3.6	< .001
Dietitian verbal meal plan	14 (4.0%)	19 (6.7%)	1.7	0.8 – 3.5	.138
Dietitian written meal plan	6 (1.7%)	13 (4.6%)	2.7	1.0 – 7.3	.044
Supportive Meal Therapy	2 (0.6%)	6 (2.1%)	3.7	0.7 – 18.6	.108

Table 2: Predictive Effect of Care Pathway Implementation on the Prevalence of Clinical Care Activities

Conclusion

An ED/DEB screening and care pathway, along with health professional training, can be feasibly implemented in a general MH inpatient setting. This process can identify more consumers at risk of ED/DEB, allowing access to consistent evidenced based care during admission. Completion of a focused training program, enabled staff to feel more confident and supported to provide specialised care.

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