

# Nurse-Led Delivery of Brief Intervention for At-Risk Alcohol Use: An Integrative Review

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## Background

- Findings from the systematic review by Platt et al. (2016) point to the positive role of nurses in delivering brief interventions (BI) intended to reduce alcohol consumption.
- Little is known about the characteristics of nurses delivering alcohol BIs and what nurses need to develop these skills.

## Purpose

This integrative review was conducted to address the following questions:

- What are the characteristics of the nurses who delivered BIs?
- What did the BIs entail?
- How were nurses prepared to deliver BIs?
- How nurses were evaluated in the delivery of BIs?
- How were alcohol-related outcomes measured?

## Materials and Methods

- Randomized clinical trials (RCT) from Platt et al. (2016) were examined and those in which nurses delivered BIs were selected for review.
- A search was conducted to identify RCTs published since the systematic review from January 2014 and October 2017.
- Nine publications were reviewed for inclusion and appraised for quality using the Johns Hopkins Nursing Evidence—Based Practice (JHNEBP) guidelines
- Data were extracted into a table of evidence (see Table.)

## Results

- The findings provide only limited information regarding nurses' characteristics (demographics, education, licensure, experience).
- Across the studies, 89% utilized either brief advice or motivational interviewing (MI); only one RCT utilized MI plus.
- Publications that described how nurses were prepared included the use of teaching sessions (e.g., two 90-minutes long; one-day) or referenced them as MI workshops. The most comprehensive explanation was provided in a corollary publication cited in the parent study by Cherpital et al. (2010).
- A small number of studies reported on the provision of supervision or booster sessions following the initial education.
- The primary outcomes included quantity and frequency of alcohol consumption, utilizing diary or timeline followback method. Alcohol risk levels were assessed using standard measures. A limited number of studies utilized biomarkers to assess health consequences.

## Conclusions

- While there is evidence supporting the effectiveness of nurse-delivered alcohol BIs, little remains known from this set of studies about the characteristics of nurses, including how they were prepared to deliver the BIs.
- While space may preclude expanding on such details in the report of the RCT, researchers should consider separate publications describing the nurse characteristics, how they were prepared to deliver BIs, how fidelity was monitored, and how nurses were supported in the BI delivery.
- A more expansive database search should be undertaken to identify any studies that may have been missed by the search process.

**Reference:** Platt, L., Melendez-Torres, G. J., O'Donnell, A., Bradley, J., Newbury-Birch, D., Kaner, E., & Ashton, C. (2016). How effective are brief interventions in reducing alcohol consumption: Do the setting, practitioner group and content matter? Findings from a systematic review and metaregression analysis. *BMJ Open*, 6(8), e011473.

**Table. Randomized controlled trials in which nurses delivered alcohol-related interventions**

Source Document Evidence Level/Quality	Study Design	Patient Sample	Nurse Role	Setting	Screening and Outcome Measures	Intervention
Antti-Poika, I., Karaharju, E., Roine, R., & Salaspuro, M. (1988). Intervention of heavy drinking - A prospective and controlled study of 438 consecutive injured male patients. <i>Alcohol and Alcoholism</i> , 23(2), 115-121. I/C	<b>Arms:</b> IG: BA (n=60; n=49 f/u) CG: No advice, offered f/u after 6 months (n=60; n=40 f/u)  <b>Length of Study:</b> 6 months	N = 120  F (% female) = 0 Age = 20-64	Nurse assistant	ED Finland	<b>Screening Measure:</b> Michigan Alcoholism Screening Test (MAST) Grams of alcohol consumed in previous week  <b>Outcome Measures:</b> Biomarkers (ASAT, ALAT, GGT) Grams of alcohol consumed in previous week	<b>BI delivery:</b> Counseling by nurse to encourage moderate alcohol consumption and receipt of booklet, How to control your drinking.  <b>Sessions (Number/Minutes):</b> 1 / NR; <i>Follow-up</i> (6-months); Counseling by nurse and 1-3 times by physician  <b>BI training/monitoring:</b> Not specified
Cherpital, C. J., Korcha, M. A., Moskalewicz, J., Swiatkiewicz, G., Ye, Y., & Bond, J. (2010). Screening, brief intervention, and referral to treatment (SBIRT): 12-month outcomes of a randomized controlled clinical trial in a Polish emergency department. <i>Journal of Studies on Alcohol and Drugs</i> , 70(6), 982-990. I/A	<b>Arms:</b> IG: MI+ (n=147; n=87 f/u) CG (S): Screening only (n=147; n=92 f/u) CG (A): Assessed (n=152; n=99 f/u)  <b>Length of Study:</b> 12 months	N= 446  F = 17% Age = 45.6 years (IG), 34.7 years (Screening), 43.4 years (Assessed)	Emergency Room Nurses (n=8)	ED Poland	<b>Screening Measure:</b> Rapid Alcohol Problems Screen (RAPSA) or exceeding gender-specific weekly or daily alcohol consumption in past year  <b>Outcome Measures:</b> Timeline Followback (TLFB) RAPSA Short Inventory of Problems (SIP)	<b>BI delivery:</b> Evidence-based Brief Negotiated Interviewing (BNI)  <b>Sessions (Number/Minutes):</b> 3/15-30  <b>BI training/monitoring:</b> All nurses trained to provide the BNI worked in ED where the intervention was provided. Nurses received 1-day training on the BNI in their native Polish language. Details provided in separate publication: Cherpital, C. J., Bernstein, E., Bernstein, J., Moskalewicz, J., & Swiatkiewicz, G. (2009). Screening, brief intervention and referral to treatment (SBIRT) in a Polish emergency room: Challenges in cultural translation of SBIRT. <i>Journal of Addictions Nursing</i> , 20(3), 127-131.
Chick, J., Lloyd, G., & Crombie, E. (1985). Counselling problem drinkers in medical wards: A controlled study. <i>Br Med J (Clin Res Ed)</i> , 290(6473), 965-967. I/C	<b>Arms:</b> IG: BA (n=78; n=69 f/u) CG: Usual care (n=78; n=64 f/u)  <b>Length of Study:</b> 12 months	N = 156  F = 0% Age = 18-65 years	Nurse with experience with alcohol-related population	ED Scotland	<b>Screening Measure:</b> None (criteria related to amount and pattern of alcohol consumed and alcohol-related problems)  <b>Outcome Measures:</b> Consumption units /week Problems related to alcohol Biomarkers (MCV and GGT)	<b>BI delivery:</b> Provided booklet and engaged in discussion on lifestyle and health, consequences of pattern of alcohol use with objective to work toward problem free drinking / abstinence.  <b>Sessions (Number/Minutes):</b> 1/60  <b>BI training/monitoring:</b> Not described.
Crawford, M. J., Patton, R., Touquet, R., Drummond, C., Byford, S., Barrett, B., ... & Henry, J. A. (2004). Screening and referral for brief intervention of alcohol-misusing patients in an emergency department: A pragmatic randomised controlled trial. <i>The Lancet</i> , 364(9442), 1334-1339. I/B	<b>Arms:</b> IG: MI (n=287; n=174.6 mo. f/u); n=189.12 mo. f/u) CG: Information only (n=312, n=189.6 mo. f/u; n=195.12 mo. f/u)  <b>Length of Study:</b> 12 months	N = 599  F = 21% (n=131) Age = 43.1 year (IG), 44.5 years (CG)	Mental health nurse described as an "Alcohol Health Worker" with at least 5 years experience in working with persons with alcohol use problems (n=3)	ED UK	<b>Screening Measure:</b> Paddington Alcohol Test (PAT)  <b>Outcome Measures:</b> Paddington Alcohol Test (PAT) Alcohol consumption over previous 3 months General Health Questionnaire Health-related quality of life Return to ED	<b>BI delivery:</b> Assessment and discussion of current and previous alcohol use. Discussion may involve resolution of ambivalence regarding alcohol use and determining action, offering feedback about safe amounts of alcohol and suggestion of strategies to reduce alcohol consumption.  <b>Sessions (Number/Minutes):</b> 3/30  <b>BI training/monitoring:</b> Researcher examined random sample of 50 sets of notes made by an alcohol health worker to determine fidelity to intervention.
Holloway, A. S., Watson, H. E., Arthur, A. J., Starr, G., McFadyen, A. K., & McIntosh, J. (2007). The effect of brief interventions on alcohol consumption among heavy drinkers in a general hospital setting. <i>Addiction</i> , 102(11), 1762-1770. I/B	<b>Arms:</b> IG: MI (n= 70; n=60 f/u) CG 1: Self-help booklet (n=69; n=58 f/u) CG 2: Usual care (assessed only) (n=76; n=54 f/u)  <b>Length of Study:</b> 6 months	N = 215  F = 15% (n=32) Age = 43.7 years (IG), 44.4 years (CG 1), 45.5 years (CG 2)	Mental health nurse with extensive counseling experience	Hospital UK	<b>Screening Measure:</b> 7-day retrospective drinking diary (> 21 and 14 standard units for men and women, respectively)  <b>Outcome Measures:</b> Alcohol quantity and frequency Using 7-day retrospective drinking diary Drinking Residual Self-Efficacy Expectancy Questionnaire (DRSEQ)	<b>BI delivery:</b> BI that drew on the FRAMES model with each of the six elements (feedback, responsibility, advice, motivation, empathy, and self-efficacy) incorporated into the intervention.  <b>Sessions (Number/Minutes):</b> 1/20  <b>BI training/monitoring:</b> Nurses were part of the study team to ensure standardization; No further description provided on how prepared for BI delivery.
Lock, C. A., Kaner, E., Heather, N., Doughty, J., Crawshaw, A., McNamee, P., ... & Pearson, P. (2006). Effectiveness of nurse-led brief alcohol intervention: A cluster randomized controlled trial. <i>Journal of Advanced Nursing</i> , 54(4), 426-439. I/B	<b>Arms:</b> IG: BA (n=67; n=39: 6 mo. f/u; n=36.12 mos. f/u) CG: Treatment as usual (n=60; n=32:6 mo. f/u; n=42.12 mo. f/u)  <b>Length of Study:</b> 12 months	N = 127  F = 51% (IG), 48%(CG); Age = 42.7 years (IG), 45.7 years (CG)	Research nurses F = 100%. Mean age = 46 Mean years in general practice = 9	General Practice UK	<b>Screening Measure:</b> AUDIT  <b>Outcome Measures:</b> Alcohol quantity AUDIT TLFB Drinking Problems Index (DPI) Health Related Quality of Life (SF-12) Health Economic Evaluation	<b>BI delivery:</b> "Drink Less" protocol used to guide the intervention involving structure advice on alcohol (standard drinking units; recommended low-risk consumption levels; benefits of cutting down drinking; tips on helping patients reduce consumption; advice on how to set goals, determine action and review progress; and a self-help booklet/diary for patient use.) Control group received standard advice about alcohol use and "Think about Drink" leaflet containing daily benchmark guides for alcohol men and women and basic advice on alcohol.  <b>Sessions (Number/Minutes):</b> 1 / 5-10  <b>BI training/monitoring:</b> Nurses were recruited specifically for this study. Nurses were given frequent telephone calls for support.
Noknong, S., Rangsri, R., Saengcharnchai, P., Tantibhaedhyangkul, U., & McCambridge, J. (2010). RCT of effectiveness of motivational enhancement therapy delivered by nurses for hazardous drinkers in primary care units in Thailand. <i>Alcohol &amp; Alcoholism</i> , 45(3), 263-270. I/C	<b>Arms:</b> IG: MI (n=59; n=50 wk. f/u; n=55.3 mo. f/u; n=56.6 mo. f/u) CG: Treatment as usual (n=58; n=48:6 wk. f/u; n=53:3 mo. f/u; n=51:6 mo. f/u)  <b>Length of Study:</b> 6 months	N=117  F = 8% Age:36.8 years(IG),37.1years(CG)	Nurse	General Practice Thailand	<b>Screening Measure:</b> AUDIT  <b>Outcome Measures:</b> Alcohol consumption during the previous week (drinks per drinking day, drinks per week, frequency of binge alcohol use – past week and past day) GGT	<b>BI delivery:</b> Guided by adaptation of Motivational Enhancement Therapy Manual. Interventions were directed base on patient's stage of change. (1) Precontemplation: feedback, MI skills to promote change; (2) Contemplation: Use of pros and cons, MI to promote change; (3) Determination: provision of options on how to reduce alcohol use, elicit commitment to change and negotiate goals; (4) Maintenance: relapse-prevention focus.  <b>Sessions (Number/Minutes):</b> 3 (Day 1, 2 weeks, 6 weeks) /15  <b>BI training/monitoring:</b> Nurses were educated in one 6-hour session that included lecture and practice exercises to assess the severity of alcohol problems, the effect of alcohol on the patient's health, and the effect of alcohol on the family and society.
Shiles, C. J., Canning, U. P., Kennell-Webb, S. A., Gunstone, C. M., Marshall, E. J., Peters, T. J., & Wessely, S. C. (2013). Randomised controlled trial of a brief alcohol intervention in a general hospital setting. <i>Trials</i> , 14(1), 345. I/B	<b>Arms:</b> IG: BA (n=79; n= 58:3 mo. f/u; n=54:12 mo. f/u) CG: Treatment as Usual (no advice) (n=75; n=57:3 mo. f/u; n=52:12 mo. f/u)  <b>Length of Study:</b> 12 months	N=154  F = not reported Age = 50 years (IG), 52 years (CG)	Research nurse	Hospital UK	<b>Screening Measure:</b> AUDIT  <b>Outcome Measures:</b> Consumption using AUDIT and Drink Diary Alcohol problems using APQ, DADO, GHQ Biomarkers (GGT, MCV, Hemoglobin [Hb])	<b>BI delivery:</b> Assessment of alcohol intake and simple advice to reduce alcohol consumption to 21 units or below (male) and 14 units or below (female). Booklets including "That's the Limit" also provided.  <b>Sessions (Number/Minutes):</b> 1 / 10  <b>BI training/monitoring:</b> Not described
Smith, A. J., Hodgson, R. J., Bridgeman, K., & Shepherd, J. P. (2003). A randomized controlled trial of a brief intervention after alcohol-related facial injury. <i>Addiction</i> , 98(1), 43-52. I/B	<b>Arms:</b> IG: MI (n=75; n=70:3 mo. f/u; n=60:12 mo. f/u) CG: Treatment as Usual (n=76; n=69:3 mo. f/u; n=61:12 mo. f/u)  <b>Length of Study:</b> 12 months	N=151  F = 0% Age: 24 years (Range: 16-35)	Senior general nurse working full time in the oral and maxillofacial surgery department (n=2)	Hospital UK	<b>Screening Measure:</b> AUDIT  <b>Outcome measures:</b> 84-day alcohol consumption (Drink Diary)	<b>BI delivery:</b> Manual-guided based on MI principles. Strategies included opening the session, alcohol consumption in a typical day, agenda-setting, quick assessment of motivation to change, negative and positive aspects of alcohol consumption, information provision, contrast between present and future drinking behavior, exploring concerns and help with decision making.  <b>Session (Number/Minutes):</b> 1 / NR  <b>BI training/monitoring:</b> Nurses were trained in MI by clinical psychologists in two 90-minute sessions, followed by monthly supervisory meetings. Training was also supported by an intervention manual, prompt cards and alcohol information booklet.