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Peer-Led Interventions in Health and Well-Being: A Review of Effectiveness

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ABSTRACT

Peer education and peer counselling have existed as complements to intervention for health and wellbeing by doctors, nurses and other professional staff for many decades, but only in recent times has effectiveness research become satisfactory. These methods have potential advantages in penetrating contexts where professionals cannot, but this means establishing effectiveness is complex. This study evaluates 58 reviews (narrative and systematic reviews and meta-analyses) on this issue. In peer education, many reviews of sexual health and of HIV/AIDS interventions were found, with smaller numbers of reviews of certain medical conditions and the prison context. In peer counselling, reviews of breast feeding and mental health were evident. Earlier reviews tended to complain of lack of research; later reviews established knowledge gains but no gains in attitudes; still later reviews discovered both knowledge and attitude gains; and most recently there was evidence of knowledge, attitude and behaviour gains. Peer education and counselling are effective in certain areas (but effectiveness is unknown in other areas), and then only if projects are well managed and the cultural context taken into account. Action implications for research, practice and policy were suggested.

Keywords: Peer education; Peer counselling; Peer support; Knowledge; Attitude; Behaviour; Effectiveness

INTRODUCTION

From where does the lay person obtain medical information about diagnoses and treatments? Obviously, from doctors and nurses in hospitals and GP surgeries and from patient information leaflets and the websites of national health services and relevant medical charities. But also, from wider searches on the internet, and here the accuracy of the information begins to decline also by talking to their friends and relatives even worse, from social media, with its deluge of misinformation.

However, in developing countries, economically disadvantaged people most at risk might have no access to the internet and/or be unable to read, as well as having limited access to doctors and nurses. Even in developed countries, some at risk populations are hard to reach at least as far as professional intervention is concerned. For these groups, peer education, peer counselling, peer support and other peer-led interventions have been used for many years with training and monitoring for the peer leaders.

Peer education is defined here as "peers offering credible and reliable information about sensitive life issues and the opportunity to discuss this in an informal peer group setting" [1]. Peer counselling is defined as "people from similar groupings who are not professionals who help to clarify life problems and identify solutions by listening; clarifying; feeding back; summarizing; questioning and being positive, supportive and reassuring, then helping plan, organize and problem solve" [1].

Peer education and peer counselling are located in primary and secondary schools, in further and higher education, in work training and the workplace, and in various community settings. Such methods go well beyond formal teaching, penetrating where professionals cannot enter, but also offering a degree of approachability that professionals sometimes lack. Of course, this feature renders them inherently difficult to manage and evaluate. Nonetheless, there is evidence that peer counselling can be as effective as professional counselling, and such evidence has existed in the literature for years [2,3]. Many peer education and

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peer counselling programs target helper gains as well as gains for the helped, since to be a helper can be more therapeutic than being helped.

METHODOLOGY

Peer education, peer counselling and peer support for health and well-being were subject to a systematic review, particularly looking for existing reviews of the literature. Search keywords were: "peer education" "peer counselling" or "peer counselling" or "peer support" and health or well-being or wellbeing. Four databases were searched: ERIC, Scopus, Web of Science and Google Scholar (the latter three including papers from medicine). Criteria for inclusion were: the paper was a peer-reviewed journal article, in the English language, and was a review of quantitative and/or qualitative data. No date limits were set. 58 reviews were located from 1974 through 2022, most from 2000-2022. Some of these were narrative reviews, most were systematic analyses, and a few were meta-analyses. Some of these reviews reported on young people, some on adults, and some on a mixture. Later reviews were more likely to feature randomized controlled trials (RCTs) or be exclusive to RCTs, but study quality and the age of the review were only loosely related. A minority of the reviews gave Effect Size (ES), Mean Standard Deviation (MSD) and Odds Ratios (OR), Risk Ratios (RR) or other quantitative measures of impact.

RESULTS

Peer education reviews were located in six categories; peer counselling and support reviews in three categories. These categories are contestable but serve to facilitate reader access. **Table 1** summarises the overall pattern. Study quality was highest for peer education in HIV/AIDS and Social Problems; weakest in the peer education General category.

Table 1: Categorization of the Review Studies by Type of Problem

Type of Problem	Total Number of Reviews	Number of Types of Review: Narrative, Systematic or Meta-Analysis *	Number of Studies with Effect Sizes or Equivalent	Effect Sizes or Equivalent, where given
		Peer Education		
Sexual Health	10	Narrative 5 Systematic 5 Meta-analysis 1	1	0.27
HIV/AIDS	10	Narrative 4 Systematic 4 Meta-analysis 3	3	2.28, 0.37, 1.92, 1.22 3.19, 2.66, 0.50, 0.82 1.07, 1.06, 6.24 (mean=1.94)
Social Problems(drug abuse, obesity, physical activity, smoking, alcohol abuse, cannabis abuse)	7	Systematic 5 Meta-analysis 3	4	0.16, 0.72, 0.24 0.78, 0.12 1.05, 0.24, 0.75, 0.20 0.78, 0.80, 0.70 (mean=0.55)
Medical Conditions(diabetes, asthma, spinal cord injury, cardiac)	5	Narrative 1 Systematic 3 Meta-analysis 1	1	0.70, 1.36 (mean=1.03)
Prisons(HIV, risk behaviour)	3	Systematic 3	0	
General(physical activity, smoking, condom use)	14	Narrative 8 Systematic 5 Meta-analysis 1	1	−0.50, 2.86 (mean=1.18)
		Peer Counselling and Support		
Mental Health(depression, suicide)	4	Narrative 1 Systematic 2 Meta-analysis 1	2	0.59, 0.10 0.86, 0.19, 0.23 (mean=0.39)
Breast-Feeding(increase, reduce diarrhoea)	3	Systematic 2 Meta-analysis1	0	
Medical Conditions(breast cancer, colorectal cancer screening)	2	Systematic 2 Meta-analysis1	0	
cancer screening)				

*Some studies included more than one type of review, so numbers may not match

Peer Education

The first reviews in sexual health complained of lack of evidence, or reported the evidence was not positive. Later reviews were troubled by the lack of impact on behaviour despite evidence of knowledge gains. The latest reviews gave better evidence on effects, in knowledge gains, attitude gains and behaviour change. There was some evidence that peer education was more effective with women than men. The pattern was less positive in developing countries, and cultural attitudes could present difficulties, although Turkey showed excellent results.

More than half the literature on peer education for HIV/AIDs comes from developing countries, where the problem is much greater in relation to population size, and relevant resources less accessible. However, in developing countries there is evidence of knowledge gain, but also of behavioural gains in at least some behaviour (including condom use, number of sex partners, and reduced equipment sharing). Nonetheless, other behavioural effects were less certain (e.g. acquisition of STIs). Recent studies [4,5] showed peer education increased HIV testing and condom use, decreased unprotected sex and equipment sharing, decreased HIV infection rates, increased viral suppression and increased retention in care, with effects lasting from 3-24 months.

Orienting to peer education in the context of social problems, peer-led sessions about drug abuse were effective; more effective than sessions led by professionals. Participants yielded evidence of decreased substance use and increases in a range of recovery outcomes.

Turning to the issue of obesity, knowledge of healthy eating, positive attitudes to healthy eating, positive intentions, measures of diet, circumference of the waist, total weight and body mass index (BMI) all improved as a result of peer education. Programs were liked by students, parents and staff. However, the evidence on longer term change (three months to two years) was more disappointing.

Peer education programmes focusing on increasing physical activity showed significant gains. School based programmes to prevent or reduce smoking in adolescents in developing countries showed increased knowledge plus behavioural change. Sessions led by peers were seen as more enjoyable and credible and were preferred. Again, peer education was more effective than professional education.

Turning to the abuse of alcohol, abuse was lower among the peer-led intervention group compared with controls. Three of these studies also indicated impact on use of cannabis. Considering peer education in various medical conditions, a minority of studies of adults with type 2 diabetes gave positive effects, one of the few more negative findings. However, for patients with asthma peer education improved lung function and life quality. Peer education with patients with spinal cord injury showed high success. A broader review of peer education showed mixed results but good effectiveness with diabetes and cardiac patients. Peer-led physical activity projects for young people had mostly positive outcomes. Peer education in prisons could positively affect attitudes, knowledge and behavioural intention regarding HIV, while reducing risky behaviour and increasing HIV test rates. Prisoners preferred peer education to professional delivery and it was as effective. Taking the role of peer educator was consistently associated with positive outcomes. However, the evidence was mixed for impact on injecting practice and drug use.

Turning to the "General" category, the older reviews were weak, only one study [6] noting any behavioural change? Even later, some reviews offered almost no evidence on knowledge, attitude or behaviour change. Three even later studies showed mixed results, a minority showing behavioural change effects, although impact on knowledge and attitudes were more frequent. However, the three most recent reviews showed more positivity, reporting knowledge change but additionally widespread behaviour changes, for example in physical activity, smoking and condom use. However, in this section review positivity showed very little relationship to the age of the review, which was more the case in other sections.

Peer Counselling and Support

Regarding peer counselling and/or support on general mental health, an early review had mixed results, but a later review found that hospitalization rates reduced and recovery improved. Other studies showed peer counselling relieved depression and decreased suicide rates. Regarding breastfeeding, effects were positive: breast feeding increased and baby diarrhoea reduced (although in Uganda diarrhoea stayed the same). High income young mothers showed some positive effects of peer counselling on exclusive breast feeding, but many also used baby formula. In medical conditions, peer counselling and/or support had positive effects on most breast cancer patients. In ethnic minorities, peer support raised awareness and intention to undergo colorectal cancer screening, and increase actual implementation of screening.

DISCUSSION

Although the quality of reviews has generally improved, there is still much heterogeneity between studies and reviews, and little evidence of implementation integrity or fidelity of programmes. Furthermore, few reviews contained much evidence of longer term sustainability of programs over time. Where follow up existed, it was generally only for three to six months. Additionally, most reviews assumed a narrow medical model of diagnosing a problem and then seeking to remediate it, being reactive to specific problems, with little evidence of more preventive or pro-active measures. The developing physical activity studies were an exception to this.

Review quality was very various, showing something of a tendency for later reviews to be better, but this was not even. The HIV/AIDS section was especially strong and later reviews were stronger. Obesity reviews were also especially strong and later reviews stronger. Mental Health reviews were also strong and later reviews stronger. However, in other areas, fewer reviews were strong, irrespective of the quantity of reviews, with little or no relationship to publication date. Some areas had no strong studies (Smoking and Prisons).

The evidence suggests that peer education; peer counselling and peer support could be extended and researched in a number of areas, including those listed above, but not only those. Studies reported that peer education was more effective than professional education and preferred by clients (e.g. in smoking, drug abuse and prisons), and further comparisons of this contrast would be useful. The implications of this are that some medical professionals might be partially re-tasked to train, supervise and

monitor peer-led projects. Additionally, some peer education and counselling projects are led by youth and community workers, who should be interested in these results.

Programme quality depends on program structure, management, initial training, supervision, support, monitoring and retention. These are all factors which require planning and resourcing. Monitoring of implementation fidelity or integrity has been rare and should be reported in future studies. Much more attention to longer term follow up (up to two years) is needed, and should be attended to despite the apparent difficulties. Cost-effectiveness is also important peer education and counselling are not free when all the costs of implementing a quality programme are considered [7].

CONCLUSION

Peer education and peer counselling now have good evidence of effectiveness in terms of knowledge and attitude gains and behaviour change, but only in certain areas, and research should be generalized to more areas of activity. The methods are feasible and in principle, the method is effective, but problematic to manage and/or quality control, much activity happening outside of observable contexts. Before starting any new programme, serious consideration of organizational factors is necessary and these then need to be managed. New programmes will need to be carefully organized, delivered, monitored and evaluated. Further information about this research is available on open access.

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COMPETING INTERESTS

There are no competing interests.

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