A method in search of a theory: peer education and health promotion

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Abstract

Peer education has grown in popularity and practice in recent years in the field of health promotion. However, advocates of peer education rarely make reference to theories in their rationale for particular projects. In this paper the authors review a selection of commonly cited theories, and examine to what extent they have value and relevance to peer education in health promotion. Beginning from an identification of 10 claims made for peer education, each theory is examined in terms of the scope of the theory and evidence to support it in practice. The authors conclude that, whilst most theories have something to offer towards an explanation of why peer education might be effective, most theories are limited in scope and there is little empirical evidence in health promotion practice to support them. Peer education would seem to be a method in search of a theory rather than the application of theory to practice.

Introduction

Within the literature developing around peer education, there is very little reference to theory. It is noteworthy in this regard that the Health Education Authority (HEA) in two publications promoting peer education make absolutely no reference to theory in their rationale for it (Clements and Buczkiewicz, 1993; HEA, 1993). On the few occasions when theory is mentioned, such as in the reviews undertaken by Perry and Sieving (Perry and Sieving, 1993), Peers et al. (Peers et al., 1993) and Wilton et al. (Wilton et al., 1995), it tends to be cursory, lacking in analysis or investigation. Claims for the effectiveness of the method therefore have little basis in existing theories. Although located broadly within the field of social psychology, peer education does not appear to have its roots within a particular school of thought. There are theories within sociology and education that could also be applied to it. It can be concluded that rather than the practical application of theory, peer education rests on lay principles and assumptions. It would seem to be a method in search of a theory rather than the application of theory to practice.

In this article there will be an investigation of the relevance of some commonly cited theories relating to peer education. It cannot claim to be a comprehensive review of all potential theories, rather the intention is to consider those theories which have been mentioned in the peer education literature. Nor is there any intention to critique the theories in themselves. Only their scope and explanatory power with regard to peer education will be considered. A key point to bear in mind is that none of the theories were originally devised to explain the efficacy of peer education. Some of them only have a limited application to peer education principles and practice. The theories also stem from very different philosophical traditions and are located in particular schools of thought, some sociological, some psychological.
Background

According to Wagner (Wagner, 1982), the history of peer education can be traced back as far as Aristotle. There have been many peer education initiatives throughout history, working in a variety of contexts. Worthy of note is the ‘monitorial system’ set up by Joseph Lancaster in London in the early 1800s, by which teachers taught ‘monitors’ who then passed on what they had learned to other children [see Gerber and Kauffman (Gerber and Kauffman, 1981) for a fuller account]. Another initiative was the student influenza immunization initiative at the University of Nebraska in America in 1957 [see Helm et al. (Helm et al., 1972)].

More recently, peer education has been utilized in health projects seeking to reduce the incidence of smoking among young people (Perry et al., 1983; Klepp et al., 1986; Nash, 1987; Armstrong et al., 1990; Morgan and Eiser, 1990; Telch et al., 1990; Wiist and Snider, 1991; Abernathy and Bertrand, 1992). There have also been peer education initiatives in the field of substance misuse (Hansen and Graham, 1991; McKeage and Barnard, 1992; Rhodes, 1994; Klee and Reid, 1995).

Currently peer education seems to be gaining popularity in relation to HIV prevention and sexual health promotion. In 1991 the WHO commissioned a global review of peer education HIV prevention initiatives (Perry and Sieving, 1993). The HEA also became very interested in promoting peer education as a means of preventing the spread of HIV among young people and in 1993 they funded a project based within the University of Manchester School of Education to evaluate three HIV prevention youth projects (Peers et al., 1993). Two HEA publications resulted from this: Peers in Partnership: HIV/AIDS Education with Young People in the Community (HEA, 1993) and Approaches to Peer-led Health Education: A Guide for Youth Workers (Clements and Buczkiewicz, 1993).

Methods of peer education

The methods applied to peer education vary considerably. Some forms of peer education apply very similar methods to formal tutoring, such as whole class teaching in schools or group discussion in youth centres. Other methods include very informal tutoring in unstructured settings, one-to-one discussions and counselling. In some contexts, theatre, stalls and exhibitions have been undertaken by peer educators. The methods adopted depend to some extent on the intended outcomes of the project, whether it be passing on information, behaviour change, skills development or community development. Methods also seem to be selected because they fit well with the context or culture of the target group. Some projects include a variety of methods, whilst others keep to one method.

Rationale

The rationale for peer education initiatives is not always clear, but from a fairly extensive review of the peer education literature, 10 frequently used justifications for adopting peer education have been identified:

(1) It is more cost-effective than other methods (Jones, 1992; HEA, 1993; Peers et al., 1993).

Settings

As well as being applied to a range of topics, peer education has also been applied within a range of different settings. These have included schools, colleges, youth centres, community settings and informal networks. Selection of the setting depends on the particular group selected for health promotion. Schools, colleges and youth centres have been selected in order to reach young people, whilst particular community settings have been chosen in order to reach certain at risk groups, e.g. HIV education has been targeted at gay men through initiatives based in gay pubs in which they socialize. With other groups where no obvious venue is available some form of outreach contact has been chosen, so that peers work through informal networks and access people in the places where they tend to congregate. The latter operates on similar principles to detached youth work.
(2) Peers are a credible source of information (Perry, 1989; Woodcock et al., 1992; Clements and Buczkiewicz, 1993; Jarvis, 1993).

(3) Peer education is empowering for those involved (HEA, 1993).

(4) It utilizes an already established means of sharing information and advice (Finn, 1991; Clements and Buczkiewicz, 1993; Jarvis, 1993).

(5) Peers are more successful than professionals in passing on information because people identify with their peers (Clements and Buczkiewicz, 1993; Peers et al., 1993).

(6) Peer educators act as positive role models (Perry and Sieving, 1993; Clements and Buczkiewicz, 1993).

(7) Peer education is beneficial to those involved in providing it (Klepp et al., 1986; Ford and Inman, 1992; Hamilton, 1992; HEA, 1993; Phelps et al., 1994).

(8) Education presented by peers may be acceptable when other education is not (HEA, 1993).

(9) Peer education can be used to educate those who are hard to reach through conventional methods (King, 1993; Rhodes, 1994).

(10) Peers can reinforce learning through ongoing contact (Jay et al., 1984; Kelly et al., 1991).

Theories

A good starting point for a consideration of the relevance and scope of theories would be to take these 10 claims and examine the extent to which the theories can be applied to them.

However, it should be accepted that with such a wide and divergent set of claims, it is unlikely that a single theory would be relevant to all of them.

Some of the claims could be transformed into research questions or hypotheses. Many of them could be put into a testable form, although some more easily than others. Attempting to demonstrate empowerment, for example, is extremely difficult (Tones and Tilford, 1994). However, a considerable body of evidence now exists within the field of health promotion which can be drawn on to support particular theories, as we will demonstrate in our discussion. If we consider the theories which have been mentioned in the peer education literature, we can evaluate their potential from the point of view of (a) their scope (how many of the 10 claims they could be applied to) and (b) their explanatory power (how can their assertions be demonstrated through evidence from empirical studies of peer led health promotion).

Social Learning Theory

The theory most often cited is Social Learning Theory (Peck et al., 1981; McKeganey and Barnard, 1992; Perry and Sieving, 1993; Milburn, 1995; Wilton et al., 1995; Brown, 1996). Based on the work of Bandura and colleagues, Social Learning Theory claims that modelling is an important component of the learning process. Put simply, subjects observe behaviour taking place and then go on to adopt similar behaviour. Subjects need an opportunity to practice modelled behaviour and positive reinforcement if it is to be adopted successfully (Bandura, 1977). The extent to which individuals are influenced by modelled behaviour depends on the characteristics of models, the attributes of observers and the perceived consequences of adopting similar behaviour. Initially based on studies of infants and the extent to which they imitate the aggressive behaviour of adult models (Bandura et al., 1963), Bandura went on to develop the theory into a more sophisticated explanation of how and why adults adopt similar behaviour to other adult role models. Important elements in the learning process are role model credibility and reinforcement of learned behaviour (Bandura, 1977).

In terms of the claims for peer education, Social Learning Theory seems to be relevant in terms of (2) credibility, (3) empowerment, (6) role modelling and (10) reinforcement. Peer educators would have to have credibility with others in order to be influential. In order to act as role models, according to the tenets of the theory, peers would need to be able to observe peer role models practising health
behaviour. Peers would then need scope to practise it themselves and would need positive reinforce-
ment. The process of successfully applying socially learned behaviour could also be considered to be empowering for those involved.

Credibility
Although one of the claims for peer education is that peer educators automatically have credibility within their peer group (HEA, 1993), Social Learning Theory asserts that to be a credible role model one would need to have high status within the peer group (Bandura, 1977). Many projects make no attempt to ensure that those with high status are specifically recruited to undertake peer education. However, three notable exceptions are Wiist and Snider (Wiist and Snider, 1991), Kelly et al. (Kelly et al., 1991) and Grossberg et al. (Grossberg et al., 1993). All these studies showed that popular opinion leaders within communities were successful peer educators. The evidence suggests that their status within their respective communities was a factor in their effectiveness.

Role modelling
It is the concept of role modelling which seems most central to Social Learning Theory. Some advocates of peer education make much of the importance of modelling, such as Klepp et al. (Klepp et al., 1986) who argue that

...the role of the peer educator is to serve as a positive role model and to provide social information rather than merely providing facts... peer leaders enhance the programs applicability by modelling appropriate behaviours.

However, the theory seems to have limitations due to the requirement for observation of modelled behaviour. It is questionable whether all health behaviours are susceptible to modelling. It is particularly interesting that recent developments have been in the field of sexual health where opportunities to observe modelled behaviour such as safer sex would seem to be limited!

Nevertheless, there does appear to be evidence in the health promotion literature to support claims that peers can function as effective health promotion role models. Perry and Sieving (Perry and Sieving, 1993) conclude this from their global review. They cite the study mentioned above by Kelly et al. (Kelly et al., 1991) which demonstrated that opinion leaders were effective in reducing HIV risk-taking among gay men in three American cities. Grossberg et al. (Grossberg et al., 1993) applied this to opinion leaders in an American college programme, with similar results.

However, the role modelling aspect is not demonstrated in either study. Kelly et al. do not in fact talk about role modelling as such. Perry and Sieving, p. 11 (Perry and Sieving, 1993), simply redefine opinion leaders as role models in their conclusion that:

...legitimation of risk reduction by popular opinion leaders (role models) may have brought about observed changes in sexual behaviours.

It will be noted that this is mere speculation (‘may have brought about observed changes’). Moreover the changes in behaviour are not attributed to modelling influences. The opinion leaders held conversions with peers. It is questionable whether they demonstrated safer sex behaviour. Another conclusion of the study is interesting in this regard: that 39% of the opinion leaders were having unprotected sex before the intervention and afterwards it had fallen to 24%. Whilst this can be seen, on the one hand, as further evidence of the effectiveness of the intervention and an additional bonus given our 10 claims for peer education (number 7 being that peer educators themselves benefit), it also undermines the role model claims in the sense that as many as a quarter of the role models were not in fact practising the very behaviour they were supposed to be modelling!

This gains more significance when taking account of Bandura’s argument that, to be effective, role models need to be successful and competent in modelling the desired behaviour.

Other programmes reviewed by Perry and Sieving give no further evidence of modelling influences. Although a school-based alcohol education programme adopted across several countries
showed that peers were more effective than teachers in reducing alcohol consumption among 14- to 15-year-olds (Perry and Grant, 1988), this did not seem to be because peers were better role models of abstinence or moderation. In fact the alcohol use of teachers and peers in the study is not commented on. Another study indicated that peer norms were a factor in the effectiveness of a substance misuse programme (Hansen and Graham, 1991). However, peer norms can be promoted without role modelling of desired behaviour. As Kelly et al. (Kelly et al., 1991) have clearly shown, peers do not always ‘practice what they preach’.

There is further evidence that models may fail to maintain the desired health behaviour. Some programmes which used former drug users as peer educators within drug using communities found that some of them resumed their own drug use (McKeganey and Barnard, 1992; Klee and Reid, 1995). A study of peer educators who continued to use drugs showed that they were effective in increasing other drug takers’ use of an American needle exchange programme (Rhodes, 1994) but, again, whether this was due to a modelling effect is not clear. Peers et al. (Peers et al., 1993), in their review, concluded that modelling effects in peer education have not been demonstrated.

**Reinforcement**

Another claim that Social Learning Theory can be applied to is that peers can reinforce socially learned behaviour. Reinforcement is a concept in Social Learning Theory which seems to have been borrowed from Behaviourism. Although very little of the work of Skinner and his associates can be related directly to peer education practice, there is a sense in which the concept of reinforcement of behaviour is applicable. The way in which reinforcement can operate in peer education is in the numerous opportunities peer educators may have to exercise influence, pressure or whatever. One advantage of using peers in projects aimed at young people might be that since young people spend a great amount of time socializing with their own age group, the opportunity for frequent reinforcement of patterns of behaviour exists. A message reinforced through ongoing contact is likely to be far more effective than a one-off talk or lesson by a parent or teacher.

There is some evidence for such claims in the peer education literature. Kelly et al. (Kelly et al., 1991), for example, in the study mentioned above, claimed that the method was effective because of frequent prompting about safer sex by credible peers. This could be perceived as external reinforcement for behaviour change. Jay et al. (Jay et al., 1984) also claimed that regular reinforcement by peers was a factor in the effectiveness of a health education programme promoting contraceptive use.

Successful reinforcement of course requires that the peer educators have ongoing contact with those targeted. However, in a number of peer education projects this has not been the case. In fact many projects so far have relied on a specific input, sometimes only a one-off session (Tudver et al., 1992; Phelps et al., 1994). With such projects the reinforcement effect could not be claimed.

**Empowerment and self-efficacy**

Another useful concept in Social Learning Theory is that of self-efficacy. As applied by Bandura (Bandura, 1977), this concept relates to a person’s confidence in performing a particular behaviour and their expectations of success. It is more likely for a person to put into practice socially learned behaviour if they think it will be effective. Therefore, it is no use providing peers merely with the appropriate information if in social and interactive situations they cannot, for example, resist pressures to take drugs or have unsafe sex. The content of some peer education training programmes includes social skills, such as assertiveness training, to help empower those targeted (Valdeserri et al., 1989).

This concept has implications with regard to the claim that peer education is an empowering process for those involved. However, whilst some peer education programmes have demonstrated that it is possible to provide people with skills to say no to pressures to have sex or take drugs (Howard and McCabe, 1990; Bingham, 1993), it is difficult to class such responses as evidence of
empowerment. Rather, it could be seen as compliance with programme aims to resist sex and drugs [as in the study by Jay et al. (Jay et al., 1984) where compliance with programme goals was the key objective]. Empowerment is of course very difficult to evaluate, as has already been noted.

The concepts of self-efficacy and empowerment are more readily applied to the claim that peer education is beneficial to those involved in providing it. The need for a high level of self-efficacy among peer educators is crucial if they are to carry out interventions with their peers. Klein et al. (Klein et al., 1994) showed in their study that people volunteered to become peer educators because they had a belief in their capacity to be effective or had past experience of effectiveness in social situations.

This would suggest that those who become peer educators already possess the necessary skills and qualities. Nevertheless, reviews have demonstrated that peer educators do generally benefit from peer education in terms of skills and personal development (Peers et al., 1993; Wilton et al., 1995). However, the extent of such development, and whether it can be classed as 'empowerment', cannot be ascertained given the limited nature of much of the supporting evidence.

So, to sum up, Social Learning Theory can be applied to several aspects of peer education and there is evidence to support some of its assertions. There is evidence to show that credible peers can influence health behaviour change and can reinforce such changes afterwards. However, with regard to a more fundamental claim, evidence for effects of modelling on behaviour is weak.

Social Inoculation Theory

A theory which emphasizes social pressures to adopt unhealthy behaviour is that of Social Inoculation Theory (Duryea, 1991; McGuire 1968, 1974). Premised on the belief that young people lack the negotiating skills to resist unhealthy behaviour arising from peer pressure and other influences, the theory proposes a range of techniques which it is claimed can ‘inoculate’ young people from such pressure.

In terms of scope, the theory can be applied to three of the 10 claims for peer education: (2) that peers are a credible source of information and advice, (6) that peer educators can act as positive role models and (8) that education presented by peers may be acceptable when other education is not. Morgan and Eiser (Morgan and Eiser, 1990) claimed that for health promotion messages to be effective they should be present, rather than future-orientated, and should be appropriate to the attitudes and values of the target population. In this respect, peers would be a credible and acceptable source, given that they are likely to hold similar attitudes and values.

Nevertheless, there is little evidence to support this theory. Duryea (Duryea, 1991) questions the reliability of self-reported claims about peer pressures. Other studies have questioned the extent to which peers do influence health behaviours or exert pressure (West and Michell, 1995; Michell and Wese, 1996). Coggins and McKellar (Coggins and McKellar, 1994), in a review of research into the role of peer pressure in the take up of illicit drug use, point out that evidence for pressures is based on correlational information. This has been interpreted as evidence for peer preference. They question the whole premise of Social Inoculation Theory—that individuals want to resist drugs but experience peer pressure to take them. Instead they argue that choice plays a part in the process, a process which is dynamic and reciprocal. They conclude that the motivation for drug use cannot be seen solely in terms of personal or social inadequacy.

The suitability of peers as health educators is in fact questionable if peers do influence unhealthy behaviour, such as smoking and drug taking. Regis, p. 78 (Regis, 1996), finds some irony in the idea of using peers to combat substance misuse:

Isn’t there something a little odd about trying to use young people’s susceptibility to peer influence in these programmes, when resistance to social influence from peers is at least part of the message.
In summary, Social Inoculation Theory is relevant to some of the claims made for peer education. However, if Coggins and McKellar are correct, a fundamental assertion of the theory is questionable and the influence of peer pressure on the adoption of health behaviour is not as significant as previously thought.

Role Theory

Role Theory is based on the concept of social roles and role expectations (Sarbin and Allen, 1968). Applied to peer education by Sarbin (Sarbin, 1976), the idea is that peer educators will adapt to the role expectations of a tutor and behave appropriately. In addition, through adopting a role, individuals develop a deeper understanding and commitment to it. Peer educators can therefore develop a commitment to peer education and the relevance of the health topic. Role Theory is also based on the premise that communication is inhibited by differences in culture between the teacher and learner. Peer educators who have a similar set of experiences and culture are therefore likely to be more effective in promoting learning.

This theory seems to have considerable scope with regard to the claims for peer education. Not only does it address questions concerning the credibility and acceptability of peers as educators (claims 2 and 8), it supports claims that peer education is beneficial to those providing it (claim 7).

However, the theory would seem to be narrow in its applicability. It implies that peers take on the established social role of a teacher and adopt similar behaviour. Such roles may only be acceptable within particular educational settings and place peers in the position of pseudo-teachers. It is evident that this type of role is what was adopted by peer educators in school-based programmes such as Hamilton (Hamilton, 1992) and Phelps et al. (Phelps et al., 1994), and some college programmes (Hill, 1993). Not only does this approach potentially undermine the credibility of the peer educators, but it was evident that the peer educators found it difficult to perform the tutor role (Hill, 1993; Phelps et al., 1994).

There is evidence that the peer educators in such programmes benefited in a number of ways, but evidence that those targeted benefitted, particularly in terms of adopting health behaviours, is limited.

The theory has little relevance to the informal types of peer education which take place in informal contexts. The aim of some programmes is to utilize the natural and informal networks of peer influence and existing social roles. By putting peers into a tutor role and a tutor context, the method fails to utilize already established ways in which young people share information and advice. Moreover, if peers have more credibility than teachers, why attempt to make peers adopt a role similar to a teacher?

Even in specific contexts in which the theory applies, the evidence is inconclusive. Whilst some studies have shown that peers are more effective than teachers in school health education programmes (Perry and Grant, 1988), other studies did not (Perry et al., 1983). Most studies [such as Phelps et al. (Phelps et al., 1994)] do not make any direct comparison between teachers and peers. So even though they demonstrate that the peer education programme is effective, it could be just as effective or more effective if run by teachers instead.

In conclusion, there is scope for applying Role Theory to peer education in formal contexts, but it appears to have little explanatory power.

Differential Association Theory

Based on the work of Sutherland and Cressy (Sutherland and Cressy, 1960), Differential Association Theory was applied to the study of crime. Sutherland argued that rather than the product of biological or psychological disorders, crime is learned behaviour. He argues that crime is learned in social situations by associating with those who can teach the skills and techniques required. It is in Sutherland’s ideas that we find popular notions of peers as negative influences. Young people learn ‘bad’ habits, such as stealing, smoking and drug
taking, by associating with others who can teach them. Health educators have simply turned differential association theory around to argue that young people can just as easily teach each other 'good' habits which promote health (Morgan and Eiser, 1990).

In Differential Association Theory the mere association with others provides a learning opportunity. If Social Learning Theory is essentially psychological, differential association theory is essentially sociological. In terms of the 10 claims for peer education, differential association theory would seem to apply to four: (2) peers are a credible source of information, (4) it utilizes an already established means of sharing information and advice, (8) education by peers may be acceptable when other education is not and (9) peer education can be used to educate those who are hard to reach through conventional methods.

Attempts have been made to test the applicability of Differential Association Theory to health behaviours. For example, Dull (Dull, 1983), in a study of drug and alcohol use in the US, found a strong correlation between the drug and alcohol use of individuals and that of their friends. Associating with drug users does seem to have an influence on one's own behaviour.

It should be noted that the scope of this theory is restricted to peer education through friendship and other networks of association. The theory has no applicability to the very large number of projects which use peers who are not normal associates or friends of those targeted. Even those studies which do tap into existing social situations do not always restrict those targeted to normal associates. For example, although Kelly et al. (Kelly et al., 1991) used popular men in gay bars to undertake peer conversations, they were encouraged to initiate conversations with people they did not know. A similar expectation applied in the college based adaptation of this idea (Grossberg et al., 1993).

One study of HIV prevention which did restrict peer education to friends and existing associates found that peers were a credible source of information, that it formalized an already established means of sharing information and advice, and that peers could reach those that were hard to reach through conventional methods (Shepherd et al., 1997). However, it was found that close association with a peer can raise problems when discussing sensitive sexual attitudes and sexual lifestyles.

The problem for Differential Association Theory seems to be in demonstrating how association leads to the learning of patterns of health behaviour. As Coggins and McKellar (Coggins and McKellar, 1994) point out, association does not imply causality and people may simply prefer to associate with those who adopt similar behaviour.

### Subculture theories

Sociologists such as Cohen (Cohen, 1955) and Miller (Miller, 1958) developed on Sutherland's ideas, but added the concepts of culture and subculture. Cohen argued that delinquents developed subcultures which promote values and behaviour which were oppositional to mainstream culture. Miller argued that working class culture is oppositional to middle class culture. Although these theories were developed at a time when there was much less diversity of subcultures, their claims for the role of subcultures for promoting particular behaviour remain strong.

In terms of the 10 claims for peer education, subculture theories would seem to apply to the same four as Differential Association Theory, i.e. that (2) peers are a credible source of information, (4) it formalizes an already established means of sharing information and advice, (8) education by peers may be acceptable when other education is not, and (9) peer education can be used to educate those who are hard to reach through conventional methods.

With regard to all of these claims, it could be argued that certain health promotion initiatives have developed from within particular subcultures. In particular, gay communities were credited with having taken their own initiative in promoting safer sex in response to the growing HIV epidemic King (King, 1993). Here we see credibility in terms of sexual orientation and belonging to a subculture, the use of social networks and culturally...
acceptable media to pass on information, the acceptability of advice from within the culture and using subcultural networks to reach those not reached by other methods of health promotion.

King, p. 75 (King, 1993), makes a very strong claim for subculture influence with regard to behaviour change among gay men in response to the HIV epidemic:

Contrary to popular wisdom, this unprecedented mass behaviour change owed little or nothing to the actions of governments or others outside the gay community, or to HIV antibody testing, or to the application of theory-based health education models.

There is evidence to show the effectiveness of peer led strategies of HIV prevention within gay communities (Valdeserri et al., 1989; Tudiver et al., 1992; Kippax et al., 1993; Kelly, 1995). However, these randomized controlled trial studies with their emphasis upon measuring outcomes throw little light on the processes of learning. It appears that peer acceptability and peer credibility are important. For example, Tudiver et al. (Tudiver et al., 1992) found that one session led by a gay volunteer was more effective in promoting the take up of safer sex than four sessions led by two professionals. However, even the sessions run by volunteers were structured and the authors noted that many of those they considered to be most at risk were not prepared to attend them. This raises questions about how far some of these approaches were successful in reaching those hard to reach through conventional methods.

In summary, subculture theories may have considerable explanatory power with some peer education projects, but very little with others. A great deal may depend on the strength of association of individuals with a particular subculture.

Communication of Innovations Theory

Communication of Innovations Theory explains how innovations come to be adopted by communities and what factors influence the rate of adoption [Rogers and Shoemaker (Rogers and Shoemaker, 1971), later referred to by Rogers (Rogers, 1983) as Diffusion of Innovations]. Such factors include the characteristics of those who adopt the innovation, the nature of the social system, the characteristics of the innovation and the characteristics of ‘change agents’. Rogers and Shoemaker argue that all innovations follow a similar pattern of adoption, with one group of people—the ‘innovators’—taking it up immediately. Then there are ‘early adopters’, the ‘early majority’, the ‘late majority’ and finally the ‘laggards’, including some who never adopt the innovation.

In this theory the ‘change agents’ influence key ‘opinion leaders’ within a community. These opinion leaders are in effect peer educators. Rogers and Shoemaker argue that effective communication occurs when the source and receiver are ‘homoophilous’, i.e. are similar in certain attributes, such as beliefs, values, education and social status. This would suggest that peers communicate better than those who are unequal or different.

However, there is an important respect in which peers, though ideal from the point of view of communication, may not be effective change agents. Rogers and Shoemaker claim that homophily acts as a barrier to change because new ideas are usually introduced into a community by higher
status and more innovative members of the system. Seldom do those of highest status interact directly with those of lowest status. New ideas take time to ‘trickle down’ the system because people are influenced by opinion leaders who are more homophilous than the initial innovators. Opinion leaders are peers in the respect that they have similar attributes to those with whom they communicate. However, they are also different in certain respects. They tend to be of slightly higher status, more educated, cosmopolitan and more innovative (Rogers and Shoemaker, 1971).

In effect, people seek out opinion leaders and are influenced by them because they perceive them to be more competent than themselves. There are similarities here with Social Learning Theory, in the claim that peers are influential because they have credibility through their status and competence. In fact, Bandura went on to incorporate some of the principles of Communication of Innovations Theory into Social Learning Theory (Bandura, 1977).

Communication of Innovations Theory has been applied to health promotion by Tones and Tilford (Tones and Tilford, 1994). The pattern of innovation described in the theory seems to be well illustrated by the uptake of safer sex among gay men as described by King (King, 1993). In this sense the innovators adopted safer sex as soon as information became available in 1984 and by the end of the 1980s the late majority had adopted it, with just the laggards remaining.

However, the theory seems less valuable in the case of other health behaviours, e.g. smoking. Although smoking behaviour is decreasing in the UK, this decrease can hardly be viewed as some kind of innovation. If it can, there still seem to be a large number of laggards! Moreover, there has been an increase in the uptake in smoking among young women, suggesting that a pattern of social change can be reversed. The possibility for innovations to be reversed was later accepted by Rogers in his rather more sceptical version of the theory, produced when much more evidence was available (Rogers, 1983).

For the principles of Communication of Innovations Theory to be applied effectively in peer education would require that health promoters (the change agents) seek out and recruit opinion leaders who would undertake peer education. Such a process would appear to require a lot of planning and direction from health promotion specialists when setting up a specific project. However, how those responsible for such projects would ‘manage’ the process is far from clear. Information about the many levels of cascading the message tends to be lost to the system, giving no opportunity to evaluate whether the message is lost, transformed or distorted and at what stages these things happen. It would appear to turn peer education practice into what amounts to Chinese Whispers.

However, to return to the 10 claims for peer education, Communication of Innovations Theory does seem to be very extensive in scope. It could provide a case for cost-effectiveness of peer education in terms of using unpaid volunteer opinion leaders. It suggests why, on the grounds of homophily, that peer educators would be acceptable, credible, efficacious and could act as positive role models. It is a naturalistic process, utilizing established systems of passing on information and has an outreach capability. The opportunity to reinforce learning through ongoing social contact also exists.

However, because of its emphasis on tapping into existing social communication systems, the theory has less application to more formal models of peer education within classrooms or workshop contexts, although it would suggest that opinion leaders in such contexts would be effective.

In terms of evidence, those studies which have employed popular opinion leaders (Kelly et al., 1991; Wiss and Snider, 1991; Grossberg et al., 1993) give support to the idea that opinion leaders can be effective in promoting change.

Finally, the position of Communication of Innovations Theory with regard to opinion leaders is very similar to that of McGuire’s position on ‘source credibility’ with regard to persuasion and attitude change (McGuire, 1973). McGuire argues that for a person to be persuaded by another person, that person (the source) should be perceived to be
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expert, objective, likeable and similar. He con-
cludes, as does Rogers, that a person is likely to
be persuaded by someone slightly superior, but not
too superior.

Conclusion

Attempting to locate some of the theoretical under-
pinnings of peer education as applied to health
topics is far from easy. Because peer education
projects are in so many cases lacking in theoretical
justification one can only draw inferences. Furth-
more, the diversity of peer education practice is
so considerable that few theories could be expected
to explain effectiveness, or otherwise, in all cases.

In this article an attempt has been made to apply
Social Learning Theory, Social Inoculation Theory,
Role Theory, Differential Association Theory, Sub-
cultural Theory and Communication of Innovations
Theory to health-related peer education pro-
grammes. With each their scope and explanatory
power was considered in relation to the 10 claims
made for peer education outlined at the beginning.

Whilst most theories had something to offer
towards an explanation for why peer education
might be effective, most theories were limited to
particular claims, and with regard to such claims,
limited empirical evidence is available.

Perhaps the next stage for theory development
in peer education research would be to take the
theories with most to offer and to gather further
evidence to support or refute their claims. In
particular more evidence is needed about the
importance of health behaviour role modelling
drawing on Social Learning Theory and the charac-
teristics of opinion leaders, drawing on Communi-
cation of Innovations Theory.

Below is a list of the claims and the theories
which appear to have some relevance:

(1) Cost-effectiveness: Communication of Innov-
ations Theory.

(2) Credibility: Social Learning Theory, Social
Inoculation Theory, Role Theory, Differential
Association Theory, Subculture Theory, Commu-
nication of Innovations Theory.


(4) Naturalism: Differential Association Theory,
Subculture Theory, Communication of Innovations Theory.

(5) Efficacy: Role Theory, Subculture Theory,
Communication of Innovations Theory.

(6) Role modelling: Social Learning Theory,
Social Inoculation Theory, Communication of Innovations Theory.

(7) Provider benefits: Social Learning Theory,
Role Theory.

(8) Acceptability: Social Inoculation Theory,
Role Theory, Subculture Theory, Differential
Association Theory, Communication of Innovations Theory.

(9) Outreach capability: Differential Association
Theory, Subculture Theory, Communication of Innovations Theory.

(10) Reinforcement: Social Learning Theory,
Communication of Innovations Theory.

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