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Staff knowledge and attitudes towards deliberate self-harm in adolescents

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Abstract

This study investigates knowledge, attitudes and training needs concerning deliberate self-harm (DSH) in adolescents, amongst a variety of professionals involved in the assessment and management of adolescence who self-harm. A questionnaire survey was completed by 126 health professionals working with adolescents who harm themselves. The main outcome measures were a knowledge measure and three attitude measures (generated using factor analysis). The mean percentage of correctly answered knowledge questions, across all professional groups, was 60%. With regard to knowledge, over three-quarters of participants were unaware that homosexual young men and those who had been sexually abused are at greater risk of DSH, whilst one third of staff were unaware that adolescents who self-harm are at increased risk of suicide. Staff who felt more effective felt less negative towards this group of patients ($B = -0.21$, $p = 0.03$). Forty-two per cent of the participants wanted further training in DSH amongst adolescents.

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1. Introduction

Deliberate self-harm (DSH) is a serious and growing problem amongst adolescents (Fergusson, Woodward, & Horwood, 2000). DSH is a deliberate, self-initiated, and non-fatal act, carried out in the knowledge that it is potentially harmful. This includes self-poisoning or self-injury, irrespective of the apparent level of suicidal intention. The most common form of DSH is self-poisoning. (Hawton, Fagg, & Simkin, 1997). James and Hawton (1985) found that only 41% of

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self-poisoners expressed intent to die. Lifetime prevalence estimates of DSH range from 1.5% to 10.1% among females and 1.3% to 3.8% among males (Brent, 1997). One per cent will commit suicide in the year following a suicidal attempt, whilst 10% are likely to repeat the attempt within 3 months (Spirito, Plummer, & Gispert, 1992) and 20% are likely to repeat with in a 15-year period. These adolescents are more likely to have psychiatric, academic, social and behavioural problems (Taylor & Stansfield, 1989; Flisher, 1999) but are notoriously difficult to engage in follow-up (Trautman, Stewart & Morishma, 1993; Nasr, Vostanis, & Winkley, 1997).

House, Owens and Storer (1992) noted a general perception amongst hospital staff that treatment of adult patients who self-harm was ineffective leading to ambivalence towards assessment and referral for psychiatric follow-up. Negative attitude amongst staff working with self-harming adult patients has been found in other studies (Barber et al., 1975; Patel, 1975; Ghodse, 1978). However to date there has been surprisingly little research about attitudes of clinicians to deliberate self-harm in adolescents.

The purpose of this study is to investigate: (a) level of knowledge concerning DSH in adolescents; (b) attitudes towards adolescents who harm themselves; (c) training needs; amongst of a variety of professionals involved in the assessment and management of children and adolescence who self-harm.

2. Methods

A questionnaire was developed specifically for the study, using design methodology recommended by Rust & Golombok (1989), as there were no suitable questionnaires from previous research. The study was carried out in three inner city boroughs of south London and involved staff from three teaching hospitals and the related Child and Adolescent Mental Health Services (CAMHS).

The authors approached heads of all the clinical services, that had regular clinical contact with self-harming adolescents, to request participation in the study. All those approached agreed to take part. Boroughs A and C both had casualty departments, associated paediatric inpatient units and local CAMHS. Borough B had an inpatient psychiatric adolescent unit and a CAMHS service. There was no casualty service in borough B. Patients from borough B usually attended casualty in boroughs A and C. (The south east area of borough C had another hospital with a casualty department, associated paediatric inpatient unit and local CAMHS which did not take part in the study). Teaching hospitals were targeted because of the range of staff with different levels of training and experience who would be available to take part in the study. All clinical staff, working at the above sites, who had regular clinical contact with self-harming adolescents, were invited to take part.

Both paediatric casualty departments were separate units within a general casualty department and had similar admission policies whereby all adolescents who harmed themselves were admitted to a paediatric ward for assessment by a child and adolescent psychiatrist. The assessment involved interviewing the adolescent and also their parents or carers. On one site this assessment was usually carried out jointly with a hospital-based social worker.

Information collected included: (a) individual experience in working with children and adolescents; (b) knowledge about DSH in young people; and (c) attitudes towards managing this

group. Whilst some of the knowledge questions are more widely known than others, all “correct” answers have evidence from published research to support them. (Interested readers should contact TC for further details.) The eleventh knowledge question used the term “mentally ill”. The authors used this term to mean having a formal diagnosis of psychiatric disorder. Although participants may have interpreted this statement differently as the term was not defined in the questionnaire.

Qualitative data were collected concerning staffs perceived training needs. Data analysis was performed using SPSS version 10. Chi-squared tests were used to test differences in categorical data. Means comparisons employed independent samples *t*-tests and ANOVA with post hoc Tukey tests in the latter case to identify the source of significant group differences. The relationship between continuous variables was examined using linear regression and correlation.

The 17 questions on attitudes were subjected to an exploratory factor analysis to determine how they should be combined. A principal components analysis using a promax rotation produced three factors with eigenvalues greater than 1.5 and these were selected. Inspection of the items loading on each factor suggested that they were best described as “effectiveness” (sense of personal effectiveness in managing DSH), “negativity” (negativity expressed towards patient or family) and ‘worry’ (this item taps a concern about being blamed or feeling personally responsible for these patients). The items used in each factor are given in Table 1.

3. Results

Response rate and demographic characteristics of the participants are presented in Table 2. Participants included psychiatrists (working or training in child and adolescent psychiatry), non-psychiatric doctors, psychiatric nurses, non-psychiatric nurses and 39 other professionals (including social workers, psychologists, psychotherapists and teachers).

There were no significant differences between male and female participants in knowledge or the three attitude factors. Doctors were more likely to be male and nurses female ($\chi^2 = 7.27$, $df = 1$, $p < 0.01$). Age was correlated with number of years experience working with children and adolescents ($r = 0.71$, $p < 0.01$). In subsequent analyses experience rather than age was selected as a predictor variable since it was considered that experience has greater conceptual validity. Experience was not related to knowledge ($B = -0.13$, $p = 0.14$), effectiveness ($B = 0.09$, $p = 0.37$), negativity ($B = -0.02$, $p = 0.81$) or worry ($B = -0.04$, $p = 0.71$) using regression analysis.

Borough was not related to gender ($\chi^2 = 1.43$, $df = 2$, $p = 0.49$), knowledge ($F(2, 123) = 0.23$, $p = 0.79$), effectiveness ($F(2, 113) = 0.98$, $p = 0.38$), negativity ($F(2, 109) = 0.44$, $p = 0.65$) or worry ($F(2, 116) = 0.87$, $p = 0.42$). However borough was related to experience ($F(2, 122) = 3.28$, $p < 0.05$) with borough B (containing the inpatient unit) having professionals with less experience than borough A ($p < 0.05$) but not being significantly different from borough C.

3.1. Knowledge about self-harm in children and adolescence

For eight of the 11 knowledge questions, more than 50% of the respondents answered correctly (Table 3). Comparisons of proportions of correct responses among psychiatrists, non-psychiatric

Table 1
Factor analysis of attitudes to children who self-harm

Attitude statement	Factor		
	1: Effectiveness	2: Negativity	3: Worry
It is not useful for a child who self-harms to have contact with me	-0.67	0.21	0.24
I have someone at work with whom I can discuss these children	0.67	-0.17	-0.06
I feel hopeful that my contact with a young person who self-harms is helpful	0.69	-0.27	0.09
I think that the amount of effort I make when dealing with a self-harming child makes a difference to the outcome	0.43	-0.24	-0.21
My intervention will have no impact on young people who self-harm	-0.67	0.21	0.04
Potentially anyone may self-harm ^a	0.49	0.10	-0.17
These children usually make me feel angry	-0.14	0.78	0.21
Parents of children who self-harm usually make me feel angry	-0.03	0.64	0.42
I can empathise with parents/ carers of children who self-harm	0.08	-0.49	-0.03
Neglectful parents/ carers have self-harming children	-0.14	0.32	-0.01
Children and adolescents who self-harm waste NHS time and resources	-0.34	0.62	-0.23
I think that there is a belief among my colleagues that one should work unsupported with these children ^a	-0.20	0.63	0.03
If I do the wrong thing a child who has self-harmed will kill themselves	-0.16	0.04	0.52
I rarely find myself thinking about young people who have self-harmed when I am not at work	0.06	-0.01	-0.70
I am worried that I am going to be blamed for what might happen to these children	-0.19	0.15	0.80
People who self-harm should be required to undertake therapy in order to understand their inner motivation ^b	-0.001	-0.21	-0.30
Meeting children who self-harm makes me feel upset ^b	-0.17	-0.01	0.16

^a Items removed because they did not correspond with concepts of the above factors.

^b Not included in any factor because insufficiently loaded.

Table 2
Participation rates and demographic characteristics of participants

Borough	All	A	B	C
Total no. of participants	126	40	35	51
Participation rate (%)	66	56	81	66
% male	33	27	40	31
Age				
<25 yrs	11	4	2	5
25–34 yrs	55	14	17	24
35–44 yrs	37	8	13	16
> 45 yrs	20	12	2	6
Mean years experience	9.3	11.7	7.1	9.0
No. of psychiatrists	20	7	8	5
No. of non-psychiatric doctors	19	10	0	9
No. of psychiatric nurses	20	2	13	5
No. of non-psychiatric nurses	48	9	13	26

doctors, psychiatric nurses and non-psychiatric nurses (the four groups of sufficient size for comparison) revealed significant group differences for 7 of the 11 questions.

3.2. Attitudes to adolescents who harm themselves

Maximum possible scores, mean scores and standard deviations on the three attitude measures are shown in Table 4. In general participants felt they were reasonably effective in managing DSH. For instance 71% of participants agreed or strongly agreed with the statement “I think that the amount of effort I make when dealing with a self-harming child makes a difference to the outcome.” Interestingly, there were generally low scores on negativity across all groups. For example, in response to the statement “children and adolescents who self-harm waste NHS time and resources,” 98% of participants disagreed or strongly disagreed. A substantial number of participants reported worry about these patients. Twenty per cent of participants agreed or strongly agreed with the attitude statement “I am worried that I am going to be blamed for what might happen to these children.”

3.3. Knowledge and attitudes within professional groups

A single measure of knowledge was obtained by summing the total number of correct responses, with a possible maximum score of 11. Table 4 shows the mean scores on the knowledge and attitude measures for all participants and for each professional group, along with results of one-way ANOVA between the four professional groups. There were significant group differences in total knowledge. Post hoc Tukey’s test revealed no significant differences between psychiatric doctors and non-psychiatric doctors whilst psychiatric doctors had greater knowledge than both nurse groups and non-psychiatric doctors had greater knowledge than non-psychiatric nurses.

Table 3
Professional groups and knowledge about deliberate self-harm

Statement on self-harm (T = true/ F = false)	Correct answers (%)					p ^b
	All proof groups ^a	Psychiatrists	Non- psychiatric doctors	Psychiatric nurses	Non- psychiatric nurses	
Self-harm is more common in girls than boys (T)	77	90	95	65	75	NS
People who self-harm have an increased likelihood of committing suicide in the future (T)	66	100	90	55	54	< 0.001
Children and adolescents who have been sexually abused are no more likely to self-harm than the general population (F)	67	75	90	65	46	<0.05
There is no evidence that intervention by a mental health professional reduces further episodes of self-harm in severity and frequency (F)	58	75	63	45	46	NS
Behaviour modification programmes are not successful in the short term for young people who self-harm (F)	40	65	42	45	18	<0.05
People who self-harm often have poor communication skills and low self esteem (T)	75	90	79	60	68	NS
Self-harm is more likely to occur among young people who are socio-economically deprived (T)	33	75	42	20	25	<0.01
Gay young men are no more likely to self-harm than the general population (F)	18	10	11	10	29	NS
Girls are more likely than boys to kill themselves (F)	80	100	90	85	71	<0.05
The majority of young people who self-harm present to health services (F)	62	85	53	80	43	<0.01
Young people who self-harm are usually mentally ill (F)	83	100	84	85	64	<0.05

^a Includes all participants.

^b Using Chi-squared tests.

Table 4
Mean scores (s.d.) of knowledge and attitude items by professional groups

Item (max possible score)	All	1. Psychiatrists	2. Non-psychiatric doctors	3. Psychiatric nurses	4. Non-psychiatric nurses	R test	Post hoc group comparisons
Knowledge (11)	6.75 (2.24)	8.65 (1.66)	7.37 (2.17)	6.15 (1.79)	5.39(1.89)	$F(3,83) = 13.0$, $p < 0.001$	$1 > 3^{***}$, $1 > 4^{***}$
Effectiveness (15)	10.60 (1.93)	10.37 (1.07)	9.50 (2.46)	11.35 (1.90)	10.92 (1.76)	$F(3, 79) = 3.59$, $p < 0.05$	$2 > 4^{**}$
Negativity (15)	4.32 (1.55)	4.74 (0.93)	4.00 (1.85)	4.60 (1.85)	4.00 (1.44)	$F(3,77) = 1.29$, NS	$3 > 2^*$, $1 > 2^*$
Worry (9)	3.17 (1.60)	4.58 (1.50)	3.16 (1.39)	2.75 (1.41)	2.52 (1.37)	$F(3,81) = 8.80$, $p < 0.01$	$1 > 3^{**}$, $1 > 4^{**}$

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Scores on the personal effectiveness item were higher in psychiatric nurses than non-psychiatric doctors. Psychiatrists reported more worry than the other groups. There were no group differences for negativity.

3.4. *The relationship between knowledge and attitudes*

The relationship between knowledge and the three attitude factors was explored with linear regression. Knowledge was not related to effectiveness or negativity, whilst there was a non-significant trend for participants with more knowledge to be more worried ($B=0.16$, $p=0.09$). Participants who felt more effective experienced less worry ($B=-0.23$, $p=0.01$). This result was analysed in further detail and identified that only non-psychiatric nurses who felt more effective experienced less worry ($B=-0.52$, $p=0.01$) whilst there was no significant relationship for the other professional groups. Participants who felt more effective felt less negativity ($B=-0.21$, $p=0.03$). There were no significant relationships between knowledge and negativity or between worry and negativity.

3.5. *Training*

Forty-two per cent of the participants wanted further training in deliberate self-harm amongst adolescents. Many noted that they had none or very little training about deliberate self-harm in young people. However the specific areas in which they felt they needed further training varied across the professional groups. CAMHS staff identified deficits of training in evidence-based treatment practices, multidisciplinary assessment and supervision. Inpatient unit and non-psychiatric staff identified training needs in acute management, handling volatile situations, and communicating with these patients. A few non-psychiatric staff felt that this was a specialist area and that they personally did not need training. However, in common with many of the non-psychiatric staff, they felt it was very important to be trained in the appropriate pathways of referral to psychiatric services particularly out of normal working hours.

4. Discussion

The study took place in teaching hospitals and related CAMHS where psychiatric assessment of adolescents who self-harm was standard practice. The ready availability of psychiatric assessment fostered a generally positive relationship between Casualty and CAMHS services. The findings of this study may be relevant to other teaching hospitals in which psychiatric assessment is routinely undertaken. However, it is less likely to be relevant to hospitals in which psychiatric assessment is not standard practice. The study is limited by the small number of services surveyed. A potential bias in the study is the possibility that non-participants had more negative attitudes towards self-harming adolescents than those participating.

4.1. Knowledge

Knowledge about self-harm was reasonable with some gaps. Most participants were unaware that socio-economically deprived young people and gay young men were at greater risk of DSH, whilst nearly half the nurses were unaware that adolescents who self-harm are at increased risk of suicide. The latter finding could contribute to staff minimizing the seriousness of DSH and failing to refer adolescents for psychiatric assessment, although this was not explored in the current study. Doctors had the most knowledge about adolescents who harm themselves. However, psychiatric doctors experienced more worry than any other professional group. In the hospitals surveyed, psychiatrists generally made decisions regarding the seriousness of the attempt and subsequent management. Therefore the finding concerning worry may reflect level of responsibility rather than individual characteristics. It is important that ongoing support and supervision is provided, particularly for more junior psychiatrists working with this anxiety-provoking group.

The non-psychiatric nurses had the lowest levels of knowledge and worry. They were also the only group in which those that felt more effective felt less worried. These findings might relate to the lower level of responsibility they take in making psychiatric management decisions. Training for this group should focus on improving knowledge about DSH.

4.2. negativity

A striking finding was the apparent low level of negativity amongst staff (though there was no comparison group of non-self-harming adolescent patients). Furthermore, negativity did not relate to levels of knowledge, contact with DSH patients or professional group. Previous studies (Burgess, Hawton, & Loveday, 1998; Dorer, Feeham, & Vostanis, 1999) have found that adolescents who harm themselves are generally satisfied with services and feel staff have positive attitudes towards them. In these studies assessment from a member of the local child psychiatry team (not necessarily a psychiatrist) was available. Whether this plays a role in influencing negativity is unknown.

Creed and Pfeffer (1981) found that non-psychiatric doctors, in hospitals with access to psychiatrists, were more positive about self-harming adults than doctors in hospitals without such access. Follow-up services for adults who harm themselves vary considerably throughout the UK with less than half receiving specialist psychiatric assessment (Kapur, House, & Creed, 1998). Rotheram-Borus, Piacentini and Miller (1996) found similar variations in the management of DSH in adolescents. It is likely that in areas where child and adolescent psychiatric services work closely with paediatric departments, there is a more positive attitude towards these patients.

4.3. Training

This study, in common with Sprague (1997) identifies a need for more systematic training for all staff groups with particular emphasis on providing support networks, regular supervision and improving links between paediatric and child psychiatric services. Training should address misconceptions about young people who harm themselves particularly regarding high-risk groups and future suicide risk. The study shows that staff who felt more effective felt less negative.

Perhaps training which includes teaching on evidence-based, effective treatments will increase staffs' feelings of effectiveness and positive attitudes towards these adolescents. Current literature suggests that all adolescents who harm themselves should have a psychiatric assessment. Our survey suggests that doctors may be in the best position to carry out this assessment. Other professionals working with this patient group have a reasonable knowledge base and generally positive attitudes, and with on-going training and supervision, would also be well placed to carry out such assessments. Comprehensive, effective services may be best provided by multidisciplinary deliberate self-harm teams whose members can work together within a supportive framework to provide accessible assessments, supervise staff and coordinate training.

The results of this study suggest that staff working with adolescents who harm themselves generally have reasonable levels of knowledge about self-harm and have a positive attitude towards this group. Both Casualty departments taking part in this survey had good communication with and close links to CAMHS services and this may be influencing these findings. Doctors have more knowledge than nurses about DSH in adolescents, whilst psychiatrists feel most personal worry about these patients, compared with other professional groups. The authors consider that services for the assessment of adolescents who self-harm could be best undertaken by multidisciplinary, deliberate self-harm teams who could also provide training and support for team members as well as other health professionals working with this challenging group. Useful future research would involve repeating the survey in non-teaching hospitals to establish the knowledge and attitudes of staff working in this setting.

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