Evaluating crisis intervention services for youth within an emergency department: A view from within

Abstract

An innovative crisis intervention program was created at the Children's Hospital of Eastern Ontario in Canada in order to provide emergency assessments for youth presenting with mental health crises. The current investigation presents an overview of the program and examined the emergency staff's perception and satisfaction with it. Eighty-seven emergency department medical staff completed a survey. Overall, emergency department staff place high value on having access to emergency mental health services, are pleased with the quality of service and appreciate that the crisis intervention worker's presence allows them to spend more time with other patients.

Résumé

Un programme d'intervention de crise novateur a été développé au Centre hospitalier de l'est de l'Ontario du Canada pour évaluer les enfants et adolescents présentant des problèmes de santé mentale. La présente recherche présente un aperçu du programme et examine la perception et la satisfaction du personnel de l'urgence vis-à-vis celui-ci. Quatre-vingt sept employés du personnel médical de l'urgence ont complété un sondage. De façon générale, les employés sont satisfaits de la qualité du service offert par ce programme. Ils apprécient la présence des intervenants de crise, ce qui leur permet de passer plus de temps avec d'autres patients.

Introduction

Although there is substantial variation in the findings reviewed, results of a recent literature review indicate an estimated 12-month prevalence rate of mental health disorders in children and adolescents of about one fourth and a lifetime prevalence of one third (Merikangas, Nakamura, & Kessler, 2009). In Canada, 20% to 30% of children and adolescents have mental health problems (Stephens *et al.,* 2000). The need for mental health services is great, yet resources are lacking (Brandenburg *et al.,* 2003; Edelsohn *et al.,* 2003; Meunier-Sham and Needham, 2003; Stiffman *et al.,* 1997). Consequently, children and youth may present to the Emergency Department (ED) with psychiatric complaints, in a crisis state or with less acute symptoms. Results of a recent study indicate that most parents/caregivers present to the ED with vague expectations of receiving help and guidance for their child and for themselves (Cloutier *et al.,* 2010). The ED is perceived as a place to receive information and advice, as well as a "gateway" for other MH services (Cloutier *et al.,* 2010; McArthur & Montgomery, 2004; Solomon & Beck, 1989). Other times, mental health issues arise while the presenting medical complaint is being assessed. Regardless, both kinds of problems are a burden to the system, leading to a high volume of paediatric emergency mental health presentations. The management of paediatric patients who present to the ED with mental health problems is challenging as these services are often stretched to capacity, and the needs of these youth can be complex and difficult to understand (Christodulu *et al.,* 2002; Stewart *et al.,* 2006).

Medical and nursing personnel generally lack specialized training in mental health and are overwhelmed by the large number of youth needing mental health services (Lipton and Everly, 2002; Committee on Paediatric Emergency Medical Services, 1993). The lack of sufficient resources is further strained by the number of children and youth with non-urgent mental health concerns presenting to the ED (Christodulu *et al.,* 2002; Cole *et al.,* 1991;

Reder and Quan, 2004). Stiffman and colleagues (1997) suggested that the professionals who provide mental health services at the entry level should be able to identify the youth's problems and be knowledgeable about available services in the community. Moreover, focused intervention in the ED for children and adolescents with mental health problems can decrease cost and the length of stay of patients (Mahajan et al., 2007). However, formal mental health services for children are often not available in EDs (Reder and Quan, 2004; U.S. Consumer Product Safety Commission, 1997). In a national survey, only 24% of EDs providing paediatric care in United States reported having mental health resources available in-house (U.S. Consumer Product Safety Commission, 1997). In a survey conducted in Ontario, Canada 71% of the participating hospitals provided some form of psychiatric emergency services (Anderson and Brasch, 2005). Only 31% of these psychiatric services included a crisis team in the ED (Anderson and Brasch, 2005). Crisis intervention services are usually specialised mental health professionals providing psychiatric services within an ED.

Several emergency departments reported having inadequate resources to manage psychiatric patients, especially for children and adolescents. These studies suggest that medical staff with limited psychiatric training are often the first responders when children and youth present with a mental health issues. Moreover, the perceived needs of ED staff with respect to providing mental health services are unknown. Obtaining the perspective of ED staff regarding how to best meet the needs of children and youth with mental health problems is thus an important step in establishing clinical guidelines for paediatric emergency mental health services, and in promoting the integration of crisis services within the ED.

Satisfaction with Crisis Intervention Program

At many hospitals which have ED based crisis intervention services, medical and mental health personnel co-exist in the ED (Wells and Whittington, 1990). There is a dearth

of literature examining the relationship between the two groups in paediatric settings. There has been some enquiry into this relationship in adult EDs (Clarke *et al.,* 2005; 2007; Coristine *et al.,* 2007). For instance, Clarke and colleagues (2005) surveyed nonpsychiatric ED staff across a number of hospitals in Winnipeg, Canada regarding their satisfaction with psychiatric emergency nurses who provide ED- based mental health emergency services. Overall, respondents reported a high level of satisfaction but suggested that 24 hour coverage would be preferred. Whether ED staff perceptions would be similar in a paediatric setting is an interesting question. At Children's Hospital of Eastern Ontario in Canada, the Crisis Intervention Program is housed in but managed separately from the ED. Good communication and coordination between the two services is essential to ensure the delivery of quality mental health services.

The main objective of this study is to determine how capable ED staff feel in dealing with paediatric mental health issues and what they value in ED based crisis intervention services. Specifically, 1) ED staff's sense of competency with referring patients to the Crisis Intervention Program, 2) ED staff's overall satisfaction with the program, 3) potential usefulness of increased availability and coverage, 4) the perceived impact of the Crisis Intervention Program on ED staff workload, 5) ED staff's training needs related to mental health issues, and 6) the perceived strengths and weaknesses of the Crisis Intervention Program were examined. While this project was initially conceived as a quality assurance initiative within the tertiary care facility it provides insights into the needs and perceptions of ED staff with respect to paediatric crisis intervention services and identifies program components that are perceived as particularly crucial from their perspective. Information regarding how various consumers (here the ED staff) perceive health service delivery is important to decision making (Roberts *et al.,* 2002). It also provides insights regarding how

to improve the quality of crisis mental health services for youth, in order to promote the health and development of children and adolescents, through use of evidence-based methods.

Method

Setting

Families of South Eastern Ontario are fortunate to have access to well organized hospital based crisis intervention services for children and adolescents, through the Regional Psychiatric Emergency Services for Children and Youth (RPESCY). This initiative comprises an ED based Crisis Intervention Program, an emergency mental health program, and psychiatry coverage in the ED. This service responds to mental health emergencies of children and adolescents within the regional urban and rural areas of the Champlain Local Health Integration Network (LHIN) which is located on the eastern edge of the province of Ontario. The Champlain LHIN has a population of 1,100,300, with 13.1% consisting of visible minorities, and 10.8 % considered to be of low income. Single-parent families constitute 23.7 % of all families (Dall *et al*., 2006). The hospital's ED has a total annual volume of approximately 53,000 patients between the ages of 0 and 17.

The Crisis Intervention Program, which is the focus of this study, serves a large number of children and adolescents with mental health issues in the ED. It was established at the Children's Hospital of Eastern Ontario in 1997 to decrease the burden of ED staff dealing with the high demand for mental health services, and to provide specialized mental health services to a vulnerable population. The Crisis Intervention Program also provides consultation and education to ED staff. This service is provided by Crisis Intervention Workers (CIWs), highly skilled professionals with masters level education (e.g., in social work, counselling) who provide mental health assessments with an emphasis on risk assessment (e.g., suicidal and homicidal risk), and the provision of appropriate treatment

recommendations. On-site coverage is provided during weekdays from 7:00 to 24:00 and limited daytime and evening coverage is available during the weekend. Currently, there is no coverage for holidays or absences due to illness or vacation. Psychiatrists and psychiatry residents are on-call as needed.

The Children's Hospital of Eastern Ontario Quality Improvement and Utilization Department provided data on numbers of patient presentations to the ED from April 1, 2005 to March 31, 2006 (Kennedy *et al.,* 2009). There were approximately 53 000 visits for the population between the ages of 0 and 17 years to the Children's Hospital of Eastern Ontario ED. Over this one-year period, 784 children and adolescents were assessed through the Crisis Intervention Program. The average age was 14.0 (SD=2.36), 52.8 % were female, and most participants were between 12 and 17 years (84%). Overall, 93.1% of them were classified by clinicians as having at least 1 risk behaviour or clinical symptom in the moderate/severe range on the childhood acuity of psychiatric illness (CAPI; Lyons, 1998). The majority of patients (75.2%) seen in the Crisis Intervention Program were triaged directly to the CIWs and were not seen by an Emergency Physician. Emergency Room Physicians or Residents referred the remainder of the patients seen in the Crisis Intervention Program. Of patients seen by the CIWs, 17.9% were admitted to the inpatient psychiatric unit while the remainder were discharged from the ED.

Participants

In June 2005, eighty-seven (70%) ED medical staff, out of 124 potential respondents, completed a four-page questionnaire on a voluntary basis. The participants included nurses (n=49; 56% of the sample; but 82% of all the nurses), residents (n=13; 15% of the sample; but 55% of all the residents), and physicians (n=25; 29% of the sample; but 81% of all the full time-physicians, and 42% of all the part-time physicians).

Measure

A questionnaire was developed in consultation with the literature in the field (Gupta *et al.*, 2000; Macdonald *et al.*, 2004; Meunier-Sham and Needham, 2003; Stiffman *et al.*, 1997), and with mental health professionals practising inside and outside the ED. It was piloted with 2 ED staff members prior to being distributed. The questionnaire included 23 closed-ended and 3 open-ended questions, and comprised 7 main sections: 1) basic demographic information, 2) 3 questions assessing confidence dealing with patients with mental health issues (5 point Likert scale: low confidence to high confidence), 3) 5 questions assessing satisfaction with the Crisis Intervention Program (5 point Likert scale: very unsatisfied to very satisfied), 4) 4 questions assessing potential usefulness of increased availability and coverage (5 point Likert scale: not useful at all to very useful), 5) 2 questions assessing the impact of the Crisis Intervention Program on ED staff workload (3 point Likert scale: assess fewer patients to assess more patients), 6) strengths and weaknesses of the Crisis Intervention Program (open-ended questions), and 7) training needs (yes-no questions and an open-ended question).

Procedure and data collection

E-mail was sent to all staff who work in the Children's Hospital of Eastern Ontario ED to introduce the project. The questionnaire was distributed to ED staff mailboxes the following week with a cover sheet explaining the procedure for participating in the study. As an incentive for participation, the respondents were given the opportunity to win a single prize of 100 dollars. A numbering system was used to identify individuals who did not return the questionnaire (i.e., non-respondents). Follow-up e-mail reminders were sent to the non-respondents after two and four weeks. Also, a letter and a duplicate questionnaire were sent to the non-respondents 6 weeks afterwards. There were no associated risks or discomforts associated with participating in this project, as involvement was voluntary. The study was

conducted by a team working in the hospital, but not directly in the emergency department, and was approved by the hospital Research Ethics Board.

Statistical analyses

Data were coded and analysed using SPSS V.11.0.2 for Mac OS X (2003). Analyses were exploratory in nature and conventional descriptive statistics (means, frequencies, standard deviations) were used. The 5 point-scales used in the questionnaire were recoded into 3 point-scales for some descriptive statistics, in order to simplify reporting. The 2 indicators at the lower end of the Likert scales were collapsed together as one category (low level) and the 2 indicators at the upper end were collapsed as one category (high level). The neutral category remained the same. For example, in the confidence scale, the 1 and 2 became 1 (lower confidence), the 3 became 2 (neutral), and the 4 and 5 became 3 (higher confidence). Follow-up analyses were conducted to investigate relationships (e.g., correlations for continuous data) or differences (e.g., chi-square for categorical data) among variables. These analyses were done using the full scale data.

Results

Sample Characteristics

The majority of respondents were female nurses (81.2%). The median hours of ED staff work was 30 per week (M = 27.6, ranging from 4 hours to 60 hours). The median number of years working in the ED was 5 (M= 8, ranging from 1 month to 30 years), and working at the Children's Hospital of Eastern Ontario was 6 (M = 10, ranging from 1 month to 31 years).

Confidence dealing with Mental Health Patients

Overall, many ED staff reported confidence dealing with, triaging, and knowing when to refer patients to the Crisis Intervention Program (Table 1). There were no statistically significant group differences with regard to triaging ($\chi^2 = 9.58$, $p > .05$) or referring ($\chi^2 = 5.58$

, $p > .05$). An interesting trend emerged with respect to dealing with patients with mental health issues ($\chi^2 = 15.46$, $p = .05$) with ED physicians tending to report greater confidence in this area compared to nurses and residents.

Table 1. Emergency Department Staff's Confidence.

		Confidence				
	N	Low (%)	Neutral (%)	High (%)	N/A (n)	χ^2
Dealing with patients with MH issues	84					p = .051
Nurses		8	40	52	1	
Residents		8	42	50		
Physicians		8	8	83		
Triaging patients with MH issues	74[a]					n.s.
Nurses		2	28	70	9	
Residents		0	45	55	1	
Physicians		4	13	83	1	
Referring patients with MH issues	84					n.s.
Nurses		2	17	81	1	
Residents		8	25	67		
Physicians		8	21	71		

Note
MH = mental health
[a] ED staff who do not triage answered N/A on the questionnaire
n.s. = not significant

To examine the relationship between the three confidence questions, a number of correlations were calculated (Table 2). Confidence dealing with, triaging, and referring mental health patients was moderately to highly intercorrelated. The ED staff's confidence triaging patients with mental health issues was positively correlated with the number of years they have been working in the ED or at the Children's Hospital of Eastern Ontario ($r = .35$, $p < .01$; $r = .25$, $p<.05$ respectively). Nurses and physicians did not differ with respect to experience.

Table 2. Correlations Among Variables of Interest.

	Confidence			*Satisfaction*					
	1	2	3	4	5	6	7	8	CIWs on site

Confidence									
1. Dealing	—								
2. Triaging	.62**	—							
3. When to refer	.48**	.55**	—						
Satisfaction									
4. Process of Referring	.40**	.31**	.28*	—					
5. Availability	.08	-.01	.11	.49**	—				
6. Assessment/ Management	.36**	.31**	.30**	.46**	.20	—			
7. Communication	.40**	.52**	.31**	.45**	.20	.54**	—		
8. CIP Overall	.26*	.23*	.26*	.51**	.32**	.66**	.55**	—	
Employment									
Years in ED	.16	.35**	.21	-.01	-.09	.13	.28*	.13	.28*
Years at CHEO	.05	.25*	.16	-.06	-.07	.08	.17	.04	.36**

Note
CIP = crisis intervention program
CIW = crisis intervention
CHEO = Children's Hospital of Eastern Ontario
* $p < 0.05$
** $p < 0.01$

Satisfaction with the Crisis Intervention Program

Five questions assessed ED staff's satisfaction with the Crisis Intervention Program (see Table 3). In general, the ED staff reported satisfaction with this program (referring patients, assessment and management by the CIWs, and communication). The majority of the nurses and physicians reported being satisfied with everything but the availability of CIWs.

Table 3. Emergency Departement Staff Satisfaction with the Crisis Intervention Program.

		Satisfaction				
	N	Low (%)	Neutral (%)	High (%)	N/A (n)	χ^2
Referring patients to the CIP						
Nurses	77	11	27	61	5	n.s.
Residents		0	30	70	2	
Physicians		0	17	83	1	
Availability of CIWs**						
Nurses	82	33	45	23	1	$p < .05$
Residents		0	30	70	2	
Physicians		17	42	42		
Assessment and management by CIWs						
Nurses	80	9	24	67	2	n.s.
Residents		10	20	70		
Physicians		0	4	96	2	
Communication with CIWs						
Nurses	82	15	21	64	2	n.s.

Residents		0	36	64	1	
Physicians		0	17	83		
CIP overall						
Nurses	83	8	25	67	1	n.s.
Residents		0	36	64		
Physicians		0	17	83	1	

Note
CIP = crisis intervention program
CIW = crisis intervention worker
n.s. = not significant
** $p < 0.01$

Correlations were calculated among the five satisfaction questions (Table 2). Satisfaction with the referral process, the CIW assessment and management of patients, CIW communication, and the Crisis Intervention Program overall were all moderately to highly correlated ($r = .28$ to $.66$; $p < .05$). Satisfaction with availability was correlated with the satisfaction with the process of referring patients to the Crisis Intervention Program and with the program overall but not with assessment/management of patients by the CIWs or communication with the CIWs. ED staff's confidence dealing with, triaging, and referring patients with mental health issues was significantly positively correlated with satisfaction with the Crisis Intervention Program, but not with their satisfaction with CIW availability.

Potential Usefulness of Increased Availability and Coverage

Participants were asked to rate the potential usefulness of different propositions that would increase the availability and coverage provided by the CIWs. In summary, the vast majority of respondents who answered questions related to usefulness would find it useful to have shorter waiting times (71 to 92%), more coverage (92-96%), more CIWs (73-79%) or CIWs every weekend (98-100%). There were no significant difference between responses of physicians, nurses and residents.

Perceived Training Needs

Four questions were related to perceived training needs of the ED employees with regards to mental health issues. Thirty-seven (76%) nurses, 11 (50%) physicians and 6 (50%)

residents stated that they would like to have some training on the assessment of suicidal ideation. In addition, a significant correlation indicated that the staff who reported being less confident in dealing with patients presenting mental health issues were the most interested in having training on suicidal ideation ($r = -.26$, $p < 0.05$). Thirty-seven (79%) nurses, 7 (58%) residents, and 11 (52%) physicians reported being interested in training on mental health issues. Interestingly, the number of years ED staff have been working at the Children's Hospital of Eastern Ontario as well as the number of hours per week worked in the ED were positively correlated with the interest in having training on mental health issues ($r = .24$ for both respectively; $p < .05$).

There was less interest in training related to triaging (19 (41%) of the nurses, 5 (42%) of the residents, and 7 (33%) of the physicians) when compared to training related to mental health issues. Not surprisingly, staff who expressed an interest in having training on triaging were less confident dealing with and referring patients presenting with mental health issues ($r = .25$ and .30 respectively, $p < 0.05$).

Participants who answered they would like some training were also asked to specify the format that they would prefer for training purposes, i.e. written information or in-services (for e.g., training seminars, lunch and learn sessions). Written information was preferred by residents (65%) and physicians (47%), however only 16% of nurses requested written information. In-services was the preferred choice of nurses (51%) but much less preferred by the physicians (18%) and residents (11%).

Strengths and weaknesses of the Crisis Intervention Program

Although a broad variety of responses were received in response to the open-ended questions, several universal themes emerged. Responses to the open ended questions pertaining to perceived strengths and weaknesses of the Crisis Intervention Program were subjected to content analyses and then quantified (Table 4). An overall high satisfaction level

was found among the ED staff regarding the Crisis Intervention Program while a relatively low satisfaction was found for CIW availability. Many of the open-ended comments supported the quantitative findings. The reduction of the physician workload was the most frequently reported strength (n = 24; e.g., "decreased workload for the ED physicians who are often busy"; "lessening burden on ER physicians"). The second most frequently reported strength was the CIWs' skills at managing and assessing patients (n = 23; e.g., CIWs "know best how to deal with these kids", and "do very good assessment"). Another strength frequently reported (n = 15) was the CIWs' awareness of the community resources (e.g., "CIWs are experts in community resources"; "their ability to help connect family with resources"). Specialized training of CIWs, such as "this area is their forte", and "it's great to have someone specialized in that area of expertise" was another strength reported (n = 14). Finally, another important strength reported was the patients' access to mental health services (n =10; e.g., "prompt access to psychiatric care"; "having someone in ER to help with MH issues (is a strength)"). These findings seem to support the overall high satisfaction level found among the ED staff regarding the Crisis Intervention Program.

Most respondents identified (n=60) insufficient CIW availability and coverage as a weakness (e.g., "lack of coverage"; "not 24hr coverage"; "simply not enough workers"). More specifically, some respondents specified the lack of availability and coverage during weekends and nights. This perception is further corroborated by relatively low satisfaction for CIW availability and a high consensus among ED staff regarding the potential usefulness of increased availability and coverage. A less frequently reported weakness was the length of the assessment and the patient waits (n = 13; e.g., "long waits when CIW is with other clients"; "often take too long with each patient").

Table 4. Strengths and weaknesses of the Crisis Intervention Program.

Themes quantified from open-ended questions	Frequency (n)
Strengths	
Reduces physician workload e.g. "decreased workload for ED physicians who are often busy"; "lessening burden on ER physicians"	24
CIW's skills for managing and assessing patients e.g. CIWs "know best how to deal with these kids" and "do very good assessment"	23
CIW's awareness of community resources e.g. "CIWs are experts in community resources"; "their ability to help connect family with resources"	15
Specialized training of CIW's e.g. "this area is their forte"; "it's great to have someone specialized in that area of expertise"	14
Patient access to mental health services e.g. "prompt access to psychiatric care"; "having someone in ER to help with MH issues (is a strength)"	10
Weaknesses	
Insufficient coverage and availability of CIW's e.g. "lack of coverage"; "not 24hr coverage"; "simply not enough workers"	60
Length of patient waits and assessments e.g. "long waits when CIW is with other clients"; "often take too long with each patient"	13

Note
CIP = crisis intervention program
CIW = crisis intervention worker

Discussion

The main purpose of this study was to examine ED staff's sense of competence at dealing with children and youth with mental health problems and to determine what they value in ED based crisis intervention services. Eighty-seven ED staff (70%) completed surveys assessing their satisfaction with and perception of the Crisis Intervention Program, and reported being generally satisfied and confident in referring patients to this program. The 70 percent completion rate is high relative to other similar studies done in the field (e.g., Clarke *et al.*, 2005; MacKay and Barrowclough, 2005; Robin *et al.*, 1999; Stuart *et al.*, 2003) and suggests that the service is viewed as important and worthy of investment. Further, the high return rate suggests that the results are representative of the Children's Hospital of Eastern Ontario ED staff's perspective and are at least partially generalizable to ED staff who serve paediatric emergency mental health patients more generally. The high response rate

also highlights the importance of using good methodology in survey based studies (Dillman, 2000). Specifically, the study included several reminders to increase participation as well as a cash incentive.

ED Staff's Confidence and Satisfaction with the Crisis Intervention Program

Overall, the majority of ED staff reported feeling confident dealing with, triaging and knowing when to refer a patient presenting with mental health problems. These three dimensions of confidence were moderately to highly inter-correlated. Confidence triaging also increased with the number of years working at the Children's Hospital of Eastern Ontario, and in the ED. With experience, the criteria of triaging might become easier to understand and apply, and in return, might increase the ED staff's confidence. Interestingly, nurses at the Children's Hospital of Eastern Ontario appeared more confident with mental health triaging than nurses in other hospitals (Broadbent *et al.*, 2002; Clarke *et al.*, 2005; 2006).

Moreover, the majority of the ED staff appeared satisfied with almost every component of the Crisis Intervention Program, except the availability of CIWs. The residents, who were significantly more satisfied with CIW availability than other medical staff, are new to the ED and may not have encountered issues in this regard. The various dimensions of satisfaction were generally inter-correlated, but satisfaction with the availability of the CIWs was less consistently correlated with the other dimensions, likely because it is more related to administrative decisions than individual clinician skill. The fact there is some variability in correlations suggests that ED staff are able to go beyond global ratings and evaluate specific aspects of the Crisis Intervention Program. Interestingly, confidence dealing with mental health issues was related to satisfaction with the Crisis Intervention Program. Perhaps, when medical staff are more confident and skilled at working with individuals with mental health issues, they have a greater appreciation of what is involved in a crisis assessment thus

contributing to higher satisfaction. The ED staff's general satisfaction with the Crisis Intervention Program provides evidence that the program is effective, at least in meeting some of the needs of the medical staff.

Valued Components of the Crisis Intervention Program

The main objective of the Crisis Intervention Program is to assess and manage patients with mental health problems. Given the complexity of family dynamics and developmental factors related to children and adolescents in need of psychiatric emergency services, CIWs require specialized skills to provide effective crisis intervention, which involves determining immediate risk and clinical needs and making appropriate referrals and recommendations (Sadka, 1995). By seeing children and youth with mental health issues, whose needs are often complex and time consuming, CIWs assist the overall functioning of the ED by decreasing the burden of the medical staff. At the Children's Hospital of Eastern Ontario, the majority of patients presenting with mental health issues (61.8%) are triaged directly to the CIWs and are not seen by an Emergency Physician. The results of this study suggest that the Children's Hospital of Eastern Ontario ED medical staff is aware and appreciative of this service component. Almost 80% of the physicians reported that they assess fewer patients with mental health problems when the CIWs are on site. Moreover, the reduction of the physicians' workload was the most frequently reported strength of the Crisis Intervention Program. This finding is consistent with Clarke and colleagues (2005) who reported that the presence of psychiatric emergency nurses in the ED increased physicians' efficiency and reduced workload for the triage nurses.

ED staff also identified the CIWs' skills at managing and assessing patients, their awareness of the community resources and their specialised training as strengths. Again, Clarke and colleagues (2005) had similar findings as ED staff commented that the psychiatric emergency nurses enhanced patient care "a great deal" and had in-depth knowledge of

community resources. Coristine and his colleagues (2007) also reported that most informants working in the ED of the London's Health Science Centre evaluated crisis workers positively as they commented about their competence, flexibility, effective handling of referrals and how well they supported ED physicians and nurses. Overall, an ED based mental health service decreases the burden in the emergency (Mahajan et al., 2007) as well as on physicians and provides specialized mental health services from well-trained professionals. Such a service is of great value considering the rapid growth in demand for mental health services in paediatric EDs (e.g., Sills and Bland, 2002; Sullivan and Rivera, 2000; Hughes, 1993).

Increased Availability and Coverage

Insufficient resources for paediatric emergency mental health services has been widely acknowledged in the literature (e.g., Christodulu *et al.*, 2002; Clarke *et al.*, 2005; Hoyle and White, 2003a; 2003b; Mahajan *et al*., 2007; Reder and Quan, 2004). CIW availability and coverage was the most frequently reported weakness of the Crisis Intervention Program in the open-ended section of the survey. Enhancing availability and coverage of mental health services in ED is often suggested to improve ED functioning (Christodulu *et al.*, 2002; Clarke *et al.*, 2005; 2007; Coristine *et al.*, 2007; Stewart *et al.*, 2006). Key factors for implementing an ED based Crisis Intervention Program are clinician availability and coverage. Factors such as medical staff's perspectives, financial resources, and patient volume and flow also need to be taken into account.

Training and Education

Limits to education on mental health issues and stigma and stereotypes pose challenges to the effective provision of mental health care in the ED (Hoyle and White, 2003a). Although changing, historically, ED staff have not received training in addressing the psychological aspects of emergencies, and many of them are unsure of how to respond to a mental health crisis beyond tending to immediate medical needs (Horowitz *et al.*, 2001).

Therefore, education at all levels (e.g., CIWs, nurses, residents, physicians) is important for identifying mental health problems in children and ensuring appropriate use of specialized mental health services (Parker *et al.*, 2003; Stewart *et al.*, 2006).

ED staff need to be educated regarding what is involved in the provision of effective mental health care. For example, a crisis assessment requires a thorough interview and is therefore time consuming compared to other types of paediatric ED presentations (e.g., asthma, respiratory infections) (Christodulu *et al.*, 2002; Gillig *et al.*, 1990; Stebbins and Hardman, 1993). Several respondents cited the length of the crisis assessment as a weakness of the Crisis Intervention Program. However, a better understanding of what is involved in a crisis assessment might help staff understand the CIWs' need for a lengthy assessment. Previous studies have demonstrated that providing training in triaging and other topics pertaining to the Crisis Intervention Program and mental health may also assist ED staff with improving their confidence providing services to individuals with mental health issues (Broadbent *et al.*, 2002; Clarke *et al.*, 2006; Smart *et al.*, 1999).

Providing training on mental health issues to ED staff is challenging due to the high proportion of part-time staff, competing demands, heavy workloads, and changing shifts (Horowitz *et al.*, 2001). Nevertheless, this study suggests that ED staff are interested in training, particularly those who have the most experience and spend the most time in the ED. Therefore, it would be beneficial to provide education on mental health topics through a combination of in-services and written information (e.g., fact-sheets, brochures, and resource lists). The availability of written training materials is important given that many staff work part time or varying shifts.

Limitations

Several limitations of our study need to be considered. Although confidentiality was assured, some participants may have feared being identified because a numbering system was

used. As a result, there may have been a positive response bias. The inclusion of a neutral category for the closed ended questions may have provided the participants with the opportunity to avoid taking a position. Alternatively, considering the possibility for positive response bias, selection of the neutral category may have reflected dissatisfaction. However, it is usually suggested that people may choose the neutral category when there are indifferent or ambivalent (Nowlis *et al.,* 2002). In our sample, there were sufficient negative responses and criticisms to suggest that respondents did not hesitate to state their concerns.

The results were not compared to crisis intervention programs at other sites, however, it was not the purpose of our study, which intended to get specific information about the Crisis Intervention Program. Although it limits the generalizability of our results, it was possible to compare the results of this study to the few similar existing studies and a number of similarities were identified (e.g., Christodulu *et al.*, 2002; Clarke *et al.*, 2005; Reder and Quan, 2004).Without question, a large multi-site study examining the efficacy of paediatric emergency mental health services from the perspective of ED medical staff would be a significant contribution to establishing best practices. Moreover, the perspective of other stakeholders (e.g., patients, inpatient and outpatient staff, hospital administrators and community mental health service staff) needs to be taken into account.

Conclusions

Our findings demonstrate that ED staff place high value on having access to emergency mental health services, are pleased with the quality of service and appreciate that the CIW's presence allows them to spend more time with other patients. This study is an important step in evaluating a Crisis Intervention Program from the perspective of the professionals who refer directly to the program. This program at the Children's Hospital of Eastern Ontario in Canada enhances the delivery of mental health services for children and adolescents at the front line of care.

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