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Barriers to Seeking Mental Health Care After Treatment for Orofacial Injury at a Large, Urban Medical Center: Concordance of Patient and Provider Perspectives

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Abstract

Background—Patients with orofacial injury face significant mental health issues, yet few obtain mental health services. The goals of this study were twofold: (1) compare the perspectives of providers and patients with documented mental health service needs regarding psychosocial aftercare; and (2) identify factors that impede or facilitate aftercare participation.

Methods—Patients with orofacial injury in a large, urban medical center who met the screening criteria for probable mental health disorder ($n = 25$) and trauma service providers ($n = 35$) were queried about their perceptions of psychosocial aftercare and beliefs regarding potential barriers to seeking care. Bivariate analyses and Fisher's exact tests were used to describe and compare patient and provider responses.

Results—Patient participants generally expressed interest in receiving aftercare services for psychological problems. For patients, lack of information about services, financial cost, and availability of transportation emerged as the most salient barriers to care. The providers also rated these barriers as among the most salient; however, important provider-patient discrepancies emerged during barrier ratings. The most potentially challenging area of divergence concerned provider beliefs that patients are disinterested in addressing psychological problems, lack faith in the effectiveness of psychosocial services, and do not regard solving these problems as a priority.

Conclusions—A substantial proportion of patients have unmet psychosocial needs after facial trauma. Patients desire these services but endorse key barriers to care seeking. Providers are not necessarily aware of either the extent of interest in psychosocial services or the nature of the barriers that would impede care utilization. Implications for improving access to care are discussed.

Keywords

Orofacial injury; Mental health; Postinjury aftercare; Barriers to care; Patient-provider communication

Treatment of violence-related facial trauma is understandably directed primarily at the overt manifestations of the injury. Yet, emerging evidence documents that such injuries are associated with significant psychosocial needs. Empirical research indicates, for example, that alcohol misuse contributes to violence-related facial injury¹ and that alcohol problems can complicate recovery.² Moreover, studies indicate that facial injury survivors are at increased risk for posttraumatic stress disorder (PTSD)³⁻⁵ and major depression.^{6,7}

Despite documented treatment needs, only a fraction of facial trauma survivors seek mental health services.⁴ Failure to address the psychosocial needs of trauma injury patients can significantly impede recovery and lead to serious reinjury.⁸ The disparity between established psychosocial needs and actual use of mental health services may derive, in large part, from differing perceptions between patients and providers. For example, trauma care providers tend to focus on the physical components of the injury, using these as markers of outcomes.⁹ In contrast, patients' perceptions of outcomes and help seeking behavior may be driven not only by physical health status but also by their knowledge and beliefs about their symptoms as well as personal and structural constraints.^{10,11}

There is growing recognition that the degree of concordance between patient and provider perspectives can have a profound role in shaping the course of treatment and in ensuring adequate access to care.¹²⁻¹⁴ Consequently, a significant shift from disease-centered models to patient-centered care has been occurring.¹⁵⁻¹⁸ In fact, the Institute of Medicine identified patient-centered care as a core component of quality health care.¹⁹ Critical to this approach is exploring and integrating patients' perspectives into medical decision making and treatment.^{11,20}

Zatzick et al.²¹ have explored the utility of a patient-centered, comprehensive care model, known as collaborative care, for general trauma patients with multifaceted problems. Collaborative care, which integrates case management, pharmacological, and psychotherapeutic treatments along with physical health care, has been associated with significantly decreased levels of PTSD and alcohol abuse problems among general trauma populations.²¹ The establishment of collaborative care within specialty oral and maxillofacial clinics may be an effective means of addressing the unmet psychosocial needs of facial trauma patients.

Individuals presenting to inner-city hospitals with assaultive orofacial injuries represent a distinctive group of trauma patients. Invariably young, socioeconomically marginalized adults with no concomitant medical problems,⁴ the trauma service becomes the predominant locus of treatment. Correspondingly, encounters with trauma injury services present an important opportunity to address both physical and psychosocial needs.^{22,23}

Although awareness of the need for such programs in general trauma settings has grown in recent years,²¹ this issue has attracted relatively less attention for oral and maxillofacial outpatient specialty clinics in hospital settings. This state of affairs exists despite the awareness that the immediate period after a facial injury may be a time of increased openness to behavior change.^{24,25}

Thus, the establishment of patient-centered, collaborative care within oral and maxillofacial trauma services may provide a significant avenue to reaching a population that is typically characterized by high levels of unmet mental health and social service need. However, to lay the foundation for designing and implementing such programs, key gaps in the literature must be filled. Most notable is the dearth of studies on the concordance between patient and provider perceptions of psychosocial aftercare, including barriers and facilitators to psychosocial treatment. Closer matches in provider and patient views may result in greater acceptance of

aftercare programs, making it essential to identify areas of divergent and concordant perspectives.

As an initial step toward developing collaborative care programs for patients with orofacial injury, we explored the concordance between patient and provider perceptions of psychosocial services as well as barriers and facilitators to their use. Specifically, we sought to (1) examine perceptions of psychosocial aftercare from the perspective of both patient and provider and (2) describe and compare patient and provider perceptions of treatment barriers and facilitators that may influence the attainment of psychosocial treatment.

PATIENTS AND METHODS

Overview

This study combined self-administered surveys of trauma care providers with interviews of patients receiving treatment for orofacial injury at a large Level I trauma center in Los Angeles. This center is part of the Los Angeles County/University of Southern California (LAC+USC) Medical Center, a large, public-funded hospital serving the predominantly minority population of East Los Angeles. Written informed consent was obtained from patient participants; clinicians were given an information sheet describing the study and provided oral consent. The study was approved and monitored by institutional review boards at the LAC+USC Medical Center, the University of California, Los Angeles, and the RAND Corporation.

Patient Recruitment and Characteristics

All adult patients presenting with assaultive orofacial injury to LAC+USC Medical Center were candidates for inclusion in the study. Patients were considered eligible for recruitment if they had at least one mandible fracture, as determined by clinical history, examination, and radiograph findings. Patients with gunshot injuries, or altered mental status attributable to head injuries, or who were mentally incompetent were excluded, as were patients who were incarcerated.

Recruitment was accomplished in a staged manner. First, persons with assaultive orofacial injuries were invited to complete a short interviewer-administered assessment while awaiting their 1-month postoperative visit. Individuals who met screening criteria for PTSD, major depression, or an alcohol use disorder as defined by a PTSD Checklist,²⁶ the Patient Health Questionnaire-9,²⁷ and the Rapid Alcohol Problems Screen 4,²⁸ were then invited to participate in a 45- to 60-minute interview that included questions about barriers and facilitators to seeking mental health care. For additional information on these instruments, please see Wong et al.²⁹

In total, 83 consecutively treated persons returning for their 1-month postoperative assessments were approached to determine study eligibility. Seventy-five percent ($n = 62$) completed the screener; 50% ($n = 31$) of these individuals met study eligibility criteria. Of those eligible, 81% ($n = 25$) consented to participate in a semistructured interview containing questions about barriers to care.

Provider Recruitment and Characteristics

The trauma care providers were recruited from the Oral and Maxillofacial Surgery (OMS) and Otolaryngology (ENT) services at the LAC+USC Medical Center. Of the 45 residents and faculty invited to take part in the study, 38 participated (i.e., 20 OMS residents or faculty and 15 ENT residents or faculty), resulting in a response rate of 84%.

Data Collection Procedures

The patient interview team was composed of four bilingual English-Spanish lay interviewers. Interviewers received extensive training before conducting interviews as well as active supervision throughout data collection. Data were obtained via face-to-face interviews. The screening interview was fully structured and took approximately 10 minutes to complete. The core interview contained semistructured and fully structured portions, and took 45 to 60 minutes to complete. The latter interview covered a range of topics in addition to those providing the basis for the present analyses. For the current purposes, only data obtained during the fully structured portion of the core interview were analyzed. Provider participants completed an Internet-based questionnaire that took 15 to 20 minutes and covered a range of topics (for additional details, see Zazzali et al.).³⁰

Measures

Perceptions of Psychosocial Aftercare—To assess participant interest in an aftercare program specifically designed to address reported mental health problems, a single question was asked: “how interested would you be in a program designed to help patients who were injured in the face with their anxiety, depression, and alcohol problems?” Responses were provided on a three-point scale ranging from 1 (“very interested”) to 3 (“not at all interested”). To assess provider perceptions of patient need for psychosocial services, a one-item statement was presented: “There is a need for an aftercare program for violence-related orofacial injury patients that deals with their depression, anxiety, and/or drug and alcohol abuse problems.” Responses were provided on a four-point scale ranging from 1 (“strongly disagree”) to 4 (“strongly agree”).

Barriers to Psychosocial Aftercare Participation—To measure barriers to participation in psychosocial aftercare, we used a checklist modeled after commonly used instruments.^{31,32} Patient participants answered each item with respect to their own beliefs. Provider participants responded regarding their beliefs about the patients they treat for violence-related orofacial injuries. The instrument contained 19 items covering various barriers with respect to structural issues, beliefs, and knowledge. Additional items inquired about receptivity to receiving psychosocial aftercare in four different settings. Items were phrased as statements, and responses were provided on a four-point scale ranging from 1 (“strongly disagree”) to 4 (“strongly agree”). We examined responses to individual barriers. For heuristic purposes, individual barriers were also classified into five broad categories: structural issues related to feasibility, location, knowledge about counseling, personal beliefs regarding counseling, and perception of others' support (Table 1).

Facilitators of Psychosocial Aftercare—To determine the potential role of health care providers and clergy as social influencers of receptivity to psychosocial aftercare, two items addressed whether patients would attend an aftercare program upon a doctor's or religious leader's recommendation. Items were phrased as statements, and responses were provided on a four-point scale ranging from 1 (“strongly disagree”) to 4 (“strongly agree”). The two social influencer items were grouped separately as facilitators rather than as barriers.

Data Analysis

Analyses were conducted in three phases. First, we calculated descriptive statistics for individual items for patient and provider participants. Second, we compared mean responses on each barrier item between patients and providers. We used bivariate analyses to describe patient and provider reports of barriers associated with seeking psychosocial services. For each barrier, we evaluated the percent agreement and used Fisher's exact test to compare responses between patients and providers. These analyses were conducted separately within patient and

provider samples. We also used χ^2 statistics to determine whether there were differences by various patient demographic variables (e.g., employment status, race) in their agreement regarding these barriers. Third, we collapsed barriers into the heuristic categories described earlier to assess aggregate differences in the number of barriers cited by patients and providers. This analysis allowed us to assess if patients and providers differed in the relative emphasis they placed on particular types of barriers to seeking psychosocial services. We adjusted *p* values for multiple comparisons across survey items by using the permutation adjustment as implemented by PROC MULTTEST in SAS 9.1.4.

We collapsed across response options to create two categories (i.e., “strongly agree or agree”; “strongly disagree or disagree”) in our analyses and reporting, with the exception of our mean comparisons. After verifying that no significant differences emerged across provider types (i.e., ENT vs. OMS) when adjusting for multiple comparisons, we aggregated across provider groups in final analyses.

RESULTS

Sample Descriptives

The patient sample consisted of 25 persons with orofacial injury. The patient sample was predominately male (88%), ethnic minority (52% Hispanic or Latino, 32% African American), never married (76%), and did not have children living with them (84%). Fifty-two percent of patients attended religious services regularly. At the time of injury, more than half of the patients were employed either full-time (36%) or part-time (16%). Although 44% of the patients were unemployed at the time of the injury, 60% were without a job post-injury. Patients evidenced at least one mental health disorder (76% depression, 84% PTSD, 68% alcohol problems). Forty-eight percent of the patients screened positively for all three disorders; 28% met criteria for two disorders. Fifty-six percent indicated that the injury had impacted their relationship with their family and friends.

Of the health care providers participating in the survey (*N* = 35), 20 (57.1%) were from the OMS service and 15 (42.9%) were from the ENT service. Residents from both surgical services comprised 75% of the respondents. Most of the respondents had medical degrees (52.8%) and/or DDS/DMD degrees (55.6%); some also held PhD degrees (5.6%).

Patient and Provider Perceptions of Psychosocial Aftercare

Of participants who met screening criteria for one of the disorders, 84% indicated interest in psychosocial aftercare. Specifically, 48% (*N* = 12) expressed “great interest” and 36% (*N* = 9) indicated “moderate interest.” Sixteen percent (*N* = 4) expressed “no interest” in psychosocial aftercare. Ninety-five percent of providers noted a need for an aftercare program to address patient postinjury psychosocial needs.

Patient Perceptions of Treatment Barriers and Facilitators

Although most patients expressed interest in psychosocial aftercare, they indicated key barriers that would impede their ability to access this type of service. Top barriers to attending a program included not knowing where to find a program (80% strongly agreed or agreed), insufficient knowledge about what counseling was like (56%), lack of transportation (56%), and believing that it is important to deal with psychological problems on one's own (56%). With respect to social influencers, most patients indicated that they would attend this type of program if a doctor (88%) or pastor (76%) recommended participation.

Analysis of the relationship between key patient demographic variables and individual barriers did not reveal any statistically significant differences, with one exception. Obtaining help for

psychosocial needs was cited as a higher priority among patients who thought their injury was affecting their family relationships (63.6% vs. 21.4%, $p < 0.05$).

Provider Ratings Regarding Patient Treatment Barriers and Facilitators

Providers were asked to cite the barriers that they thought would prevent patients from participating in psychosocial aftercare. Top barriers cited by most providers included believing that patients would not know where to find services (86.9%), that patients lack information about what counseling is like (86.8%), and that they would only attend a program in their community or neighborhood (86.4%). Other barriers commonly endorsed by providers included patients not wanting to deal with psychological problems (78.9%) and the belief that solving psychological problems is not a priority for patients (74.7%).

Concordance Between Patient and Provider Ratings of Barriers and Facilitators

Patient and provider reports of barriers were compared to analyze the level of agreement about factors that would impede patient use of services for psychosocial needs. When rating the 24 possible barriers, providers were more likely than patients to agree that the following constituted patient barriers ($p < 0.05$): losing pay from job (on four point Likert scale: 3.1 vs. 2.0), solving these problems is not a priority (2.9 vs. 2.2), thinking that counseling does not work (2.9 vs. 2.1), having no child care (3.0 vs. 1.9), embarrassment at discussing these problems (2.7 vs. 2.0), believing these problems cannot be helped (2.6 vs. 1.9), and not wanting to deal with these problems (3.0 vs. 2.2). For the treatment facilitator items, patients were more likely than providers to believe that a provider recommendation would influence their use of mental health services (3.1 vs. 2.3, $p < 0.01$).

To further understand convergence of patient and provider rating of barriers to participation in psychosocial aftercare, barriers were grouped into six categories on conceptual grounds: structural issues related to feasibility, location, personal views on counseling, perception of others' support, information about counseling, and provider characteristics. Table 1 lists the barrier categories, abbreviated item content, as well as provider and patient item means and standard deviations. Figure 1 depicts the percentage of the total number of barriers endorsed in each category by patients and providers. No significant differences between patients and providers were found regarding the extent to which lack of information about counseling or provider characteristics would interfere with seeking services. Similarly, patients and providers did not differ significantly in their ratings of the difficulties posed by having limited support from peers and family, or an inconvenient service location. Providers believed more strongly than patients that structural obstacles ($p < 0.01$) and negative personal views toward aftercare ($p < 0.05$) would hamper patient utilization of psychosocial services.

DISCUSSION

This study is, to our knowledge, the first to examine patient and provider concordance regarding beliefs about factors that impede or facilitate seeking psychosocial services for individuals with mental health needs after facial injury. The results support several conclusions. First, the data demonstrate that the majority of patients in an urban medical center who meet screening criteria for mental health conditions commonly present in the aftermath of facial trauma express interest in receiving psychosocial services. Thus, efforts to engage patients with psychosocial needs in treatment may prove fruitful.

Findings also shed light on factors perceived by facial injury patients to constitute barriers to mental health service utilization. In particular, patients endorsed transportation and cost concerns as well as lack of information about counseling and where to find services as key barriers. By contrast, patients were least likely to cite the following as barriers: concern about

childcare, loss of pay from work, and the belief that mental health services would not be effective. Similarly, patients did not view personal embarrassment, concern about what others might think, or lack of family support as important barriers to care.

Although the impediments most commonly endorsed by patients can be challenging to overcome, in many instances mechanisms may already be in place to address key issues. Insofar as many publicly funded clinics offer sliding scale payment options, for example, provision of information about the actual cost of treatment may dispel inaccurate assumptions. Similarly, publicly funded clinics often offer transportation assistance, typically in the form of vouchers for mass transit.³³ Lack of information about the nature of mental health services and where services are located could be relatively straightforward to address, although the development of psychoeducation materials may require some initial expenditure. On average, patients appeared not to hold negative views of therapy or concerns about stigma associated with mental illness, although patients reported some tendency to believe that they should address psychosocial problems without professional assistance. Patients may benefit from motivational interviewing³⁴ as well as culturally relevant educational materials that would address the stigma associated with seeking external help for psychosocial needs, particularly in minority or historically marginalized populations.^{35,36}

These findings also provide insight into factors judged by providers to be significant impediments to participation in psychosocial aftercare. Providers recognized transportation, financial cost, and lack of information as critical barriers to care. At the same time, providers emphasized other patient barriers as well. Specifically, providers viewed the following as constituting major impediments to seeking psychosocial services: patient disinterest in addressing psychological problems, lack of faith in the effectiveness of psychosocial services, and the belief that patients would not regard solving these problems as a priority. Indeed, this finding was a prominent source of patient-provider discrepancies regarding barrier ratings. That is, patients generally did not regard these factors as significant barriers to care, suggesting that beliefs regarding mental health services constitute an important topic for improved provider-patient communication efforts.

Moreover, whereas patients reported that an active recommendation to a program by a health care provider would be a significant factor influencing their use of psychosocial services, providers did not rate themselves as having much influence over patient decision-making. Thus, this finding represents a key incongruity between provider and patient ratings of potential barriers. Given apparent patient interest in receiving services aimed at addressing mental health needs, education for providers about their influential role as proponents of psychosocial care might have a positive impact on connecting these patients with services.

Although this research suggests that most survivors of violence-related facial injury may desire help with mental health problems and provides important information that might be used to enhance the likelihood that such services are received, three key limitations of this study should be noted. First, the incidence of PTSD and alcohol problems that we identified in this study may be due to other reasons that pre-dated the trauma, which may confound our findings. However, we also believe that a posttrauma assessment would identify preexisting psychological problems and that these problems are as important to treat as those that stem from the most recent trauma.²⁹ Second, this research was based on a relatively small sample of patients and trauma care providers. In addition, the patient sample was limited to males of ethnic minority descent who were seeking treatment for injuries stemming from violence-related injuries in a large, urban medical center. Thus, our findings should be interpreted with this setting in mind. Additional research should determine whether findings are replicable for patients treated in different geographic locations and in other types of service settings. Geographic and service setting factors may influence access to care as well as perceptions of

mental health services. More research also is needed to determine whether these findings would hold for females, non-Hispanic Caucasians, and survivors of non-violence-related facial trauma. Similarly, the small provider sample limits our ability to examine potentially critical differences across specialty type or level of training (e.g., comparing residents vs. faculty). Third, different methods were used to obtain information from providers and patients (i.e., a web survey was used to obtain information from care providers whereas in-person interviews were conducted with patients). To the degree that mode effects may influence study findings, future research is warranted. It is possible, although speculative, for example, that patients may be more reluctant to accurately convey beliefs about barriers to care in a face-to-face interview rather than in a self-administered or web-administered questionnaire. Additional research is needed to examine the impact of social desirability bias on participant responses, particularly by the setting in which interviews are conducted.

Despite these limitations, it appears evident that a substantial portion of patients with violence-related facial injuries could clearly benefit from collaborative care approaches that address their multifaceted problems. Insofar as a majority of these patients express interest in such services, simultaneous examination of patient and provider perspectives represents an important first step in understanding how to move toward insuring that facial injury patients with unmet psychosocial needs have access to services.

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REFERENCES

1. Gassner R, Bosch R, Tuli T, Emshoff R. Prevalence of dental trauma in 6000 patients with facial injuries: implications for prevention. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1999;87:27–33. [PubMed: 9927076]
2. Passeri LA, Ellis E III, Sinn DP. Relationship of substance abuse to complications with mandibular fractures. *J Oral Maxillofac Surg* 1993;51:22–25. [PubMed: 8419570]
3. Bisson JJ, Shepherd JP, Dhutia M. Psychological sequelae of facial trauma. *J Trauma* 1997;43:496–500. [PubMed: 9314314]
4. Lento J, Glynn S, Shetty V, Asarnow J, Wang J, Belin TR. Psychologic functioning and needs of indigent patients with facial injury: a prospective controlled study. *J Oral Maxillofac Surg* 2004;62:925–932. [PubMed: 15278855]
5. Roccia F, Dell'Acqua A, Angelini G, Berrone S. Maxillofacial trauma and psychiatric sequelae: post-traumatic stress disorder. *J Craniofac Surg* 2005;16:355–360. [PubMed: 15915097]
6. Hull AM, Lowe T, Devlin M, Finlay P, Koppel D, Stewart AM. Psychological consequences of maxillofacial trauma: a preliminary study. *Br J Oral Maxillofac Surg* 2003;41:317–322. [PubMed: 14581024]
7. Levine E, Degutis L, Pruzinsky T, Shin J, Persing JA. Quality of life and facial trauma: psychological and body image effects. *Ann Plast Surg* 2005;54:502–510. [PubMed: 15838211]
8. Brown KA, Shetty V, Delrahim S, Berlin T, Leathers R. Correlates of missed appointments in orofacial injury patients. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1999;87:405–410. [PubMed: 10225621]
9. Shetty, V.; Glynn, S.; Brown, KA. Psychosocial sequelae and correlates of orofacial injury. In: Legeros, R.; Braveman, N., editors. *Dental Clinics of North America*. WB Saunders; New York: 2003. p. 141–157.

10. Fortune G, Barrowclough C, Lobban F. Illness representations in depression. *Br J Clin Psychol* 2004;43:347–364. [PubMed: 15530206]
11. Zatzick DF, Kang SM, Hinton WL, et al. Posttraumatic concerns: a patient-centered approach to outcome assessment after traumatic physical injury. *Med Care* 2001;39:327–339. [PubMed: 11329520]
12. von Korff M, Gruman J, Schaefer J, Curry SJ, Wagner EH. Collaborative management of chronic illness. *Ann Intern Med* 1997;127:1097–1102. [PubMed: 9412313]
13. Cooper-Patrick L, Powe NR, Jenckes MW, Gonzales JJ, Levine DM, Ford DE. Identification of patient attitudes and preferences regarding treatment of depression. *J Gen Intern Med* 1997;12:431–438. [PubMed: 9229282]
14. Agency for Healthcare Research and Quality. Expanding patient-centered care to empower patients and assist providers. Agency for Healthcare Research and Quality; Rockville, MD: 2002. AHRQ Publication No. 02-0024research in action, issue 5Available at: <http://www.ahrq.gov/qual/ptcareria.htm>. Accessed October 19, 2006.
15. Bissell P, May CR, Noyce PR. From compliance to concordance: barriers to accomplishing a re-framed model for health care interactions. *Soc Sci Med* 2004;58:851–862. [PubMed: 14672598]
16. Millis SR, Jain SS, Eyles M, et al. Assessing physician interpersonal skills: do patients and physicians see eye-to-eye? *Am J Phys Med Rehabil* 2002;81:946–951. [PubMed: 12447094]
17. Gazamararian JA, Schwarz KS, Amacker LB, Powell CL. Barriers to prenatal care among Medicaid managed care enrollees: patient and provider perceptions. *HMO Pract* 1997;11:18–24. [PubMed: 10172940]
18. Cooper LA, Roter DL, Johnson RL, et al. Patient-centered communication, ratings of care, and concordance of patient and physician race. *Ann Intern Med* 2003;139:907–915. [PubMed: 14644893]
19. Committee on Quality and Healthcare in America. Crossing the Quality Chasm: A New Health System for the 21st Century. Institute of Medicine. The National Academies Press; Washington, DC: 2001.
20. Laine C, Davidoff F. Patient-centered medicine. A professional evolution. *JAMA* 1996;275:152–156. [PubMed: 8531314]
21. Zatzick D, Roy-Byrne P, Russo J, et al. A randomized, effectiveness trial of stepped collaborative care for acutely injured trauma providers. *Arch Gen Psychiatry* 2004;61:498–506. [PubMed: 15123495]
22. Glynn SM, Asarnow JR, Asarnow R, et al. The development of acute post-traumatic stress disorder after orofacial injury: a prospective study in a large urban hospital. *J Oral Maxillofac Surg* 2003;61:785–792. [PubMed: 12856251]
23. Glynn S, Shetty V, Elliot-Brown K, Leathers R, Belin TR, Wang J. Chronic post traumatic stress disorder following facial injury: a 1-year, prospective cohort study. *J Trauma* 2007;62:410–418. [PubMed: 17297333]
24. Gentilello LM, Donovan DM, Dunn CW, Rivara FP. Alcohol interventions in trauma centers. Current practice and future directions. *JAMA* 1995;274:1043–1048. [PubMed: 7563455]
25. Warburton AL, Shepherd JP. Alcohol-related violence and the role of oral and maxillofacial surgeons in multi-agency prevention. *Int J Oral Maxillofac Surg* 2002;31:657–663. [PubMed: 12521325]
26. Weathers, FW.; Litz, BT.; Herman, DS., et al. The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility; Paper presented at: The International Society for Traumatic Stress Studies; San Antonio, TX. 1993.
27. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med* 2001;16:606–613. [PubMed: 11556941]
28. Cherpitel CJ. A brief screening instrument for problem drinking in the emergency room: the RAPS4. Rapid Alcohol Problems Screen. *J Stud Alcohol* 2000;61:447–449. [PubMed: 10807217]
29. Wong EC, Marshall GN, Shetty V, Zhou A, Belzberg H, Yamashita DD. Survivors of violence-related facial injury: psychiatric needs and barriers to mental health care. *Gen Hosp Psychiatry* 2007;29:117–122. [PubMed: 17336660]
30. Zazzali JL, Marshall GN, Shetty V, Yamashita DD, Sinha UK, Rayburn NR. Provider perceptions of patient psychosocial needs after orofacial injury. *J Oral Maxillofac Surg* 2007;65:1584–1589. [PubMed: 17656287]

31. Kessler RC. Posttraumatic stress disorder: the burden to the individual and to society. *J Clin Psychiatry* 2000;61(Suppl 5):4–12. [PubMed: 10761674]
32. Wang J. Perceived barriers to mental health service use among individuals with mental disorders in the Canadian general population. *Med Care* 2006;44:192–195. [PubMed: 16434920]
33. Friedmann PD, Lemon SC, Stein MD. Transportation and retention in outpatient drug abuse treatment programs. *J Subst Abuse Treat* 2001;21:97–103. [PubMed: 11551738]
34. Swanson AJ, Pantalon MV, Cohen KR. Motivational interviewing and treatment adherence among psychiatric and dually diagnosed patients. *J Nerv Ment Dis* 1999;187:630–635. [PubMed: 10535657]
35. Cheung FK, Snowden LR. Community mental health and ethnic minority populations. *Community Ment Health J* 1990;26:277–291. [PubMed: 2354624]
36. U.S. Surgeon General. A Supplement To Mental Health: A Report Of The Surgeon General. U.S. Government Printing Office; Washington, DC: 2001. Mental Health: Culture, Race, and Ethnicity.

Fig. 1.
Percent of barriers selected by patients and providers within barrier category.

Table 1**Patient and Provider Agreement on Barriers to Seeking Psychosocial Services**

Barriers Category (Abbreviated Item Content)	Patient Rating Mean* (SD)	Provider Rating Mean (SD)	p for Difference[†]
Structural issues			
Lose pay from job	1.96 (0.68)	3.12 (0.73)	<0.0001
No child care	1.92 (0.95)	2.97 (0.67)	<0.0001
Program takes too much time	2.08 (0.64)	2.66 (0.76)	0.11
Transportation worries	2.64 (0.76)	3.00 (0.65)	0.79
Too much paperwork	2.12 (0.67)	2.47 (0.66)	0.74
Cost	2.72 (0.74)	2.85 (0.74)	1.00
Would interfere with other responsibilities	2.48 (0.96)	2.47 (0.75)	1.00
Location			
Would only attend in community	2.60 (0.82)	2.97 (0.72)	0.86
Would only go if at church	1.96 (0.54)	2.20 (0.53)	0.91
Would only attend in hospital	2.08 (0.49)	2.11 (0.53)	1.00
Would not attend through outpatient psychiatry	2.32 (0.80)	2.39 (0.70)	1.00
Personal views on counseling			
Don't think counseling works	2.08 (0.76)	2.89 (0.72)	0.004
Embarrassed to discuss problems	2.00 (0.65)	2.68 (0.73)	0.01
Solving psychological problems is not a priority	2.16 (0.80)	2.94 (0.91)	0.04
Think these problems cannot be helped	1.88 (0.73)	2.63 (0.73)	0.009
Don't want to deal with these kinds of problems at all	2.24 (0.83)	3.00 (0.69)	0.009
Don't need help	2.24 (0.88)	2.94 (0.80)	0.08
Think important to deal with problems on own	2.60 (0.82)	2.42 (0.61)	1.00
Perception of support/response from others			
Concerned what others would think if attended such a program	1.88 (0.67)	2.46 (0.74)	0.11
Family would not support decision to attend	1.92 (0.64)	1.83 (0.75)	1.00
Information about counseling			
Don't have enough info about what counseling is like	2.60 (0.82)	3.03 (0.66)	0.58
Don't know where to find program	2.96 (0.61)	3.03 (0.75)	1.00
Provider characteristics			
Does not speak language	1.96 (0.61)	2.50 (0.79)	0.17
Counselors will discriminate based on race	2.04 (0.61)	2.10 (0.59)	1.00

* Ratings: 1, Strongly disagree; 2, Disagree; 3, Agree; 4, Strongly agree.

[†] p values reflect an adjustment for multiple comparisons as described in the Methods section.

SD, standard deviation.