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Research Article

Unattended Mental Health Needs in Primary Care: Lebanon's Shatila Palestinian Refugee Camp

Steven P Segal[1]*, Vicky C Khoury[2,4], Ramy Salah[3] and Jess Ghannam[4]

[1]Professor of the Graduate Division and Director, Mental Health and Social Welfare Research Group School of Social Welfare, University for California Berkeley, CA, USA

[2]Department of Pediatrics, Phoenix Children's Hospital, Phoenix, AZ, USA

[3]Medical School, University of California, Los Angeles, CA, USA

[4]Palo Alto Medical Foundation, Palo Alto, CA, USA

***Corresponding Author:** Steven P Segal, Professor of the Graduate Division and Director, Mental Health and Social Welfare Research Group School of Social Welfare, University for California Berkeley, CA, USA.

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Abstract

Aims: This study considers factors contributing to unattended mental health needs among primary care patients in Lebanon's Shatila Palestinian Refugee Camp.

Methods: Data collection (2012-13) involved researcher-administered-structured-surveys of primary healthcare-clinic patients (n = 254) using the K6, the PC-PTSD, and the Modified-MINI mental illness screens. Chi. Sq., ANOVA and Principal Component analysis provide descriptive statistics; Logistic regression evaluates risk-factors associated with unattended-positive-mental- health-screens.

Results: The sample (n = 254) included 55% females and 45% males; aged 18-89, M = 40.4 (± 13). 51.6% (n = 132) screened positive for mental illness, for these individuals only 11.4% (15 of 132) spoke to their physician about mental illness or had an acknowledged record of psychological problems. Thus 88.6% (n = 117) had unattended-positive-screens. Patient inability to access provider advice or assistance increased chances of having an unattended-positive-screen [EXP(B) = 0.42; CI: 0.20 - 0.88] as did patients' attribution of their mental illness to a physical Illness [EXP(B) = 5.26; CI: 2.36 - 11.74], negative attitudes toward the mentally ill [EXP (B) = 0.92.; CI: 0.86 - 0.98], female gender [EXP (B) = 2.20; CI: 1.22 - 3.95], and lower SES [EXP(B) = 0.66; CI: 0.48 - 0.89].

Conclusion: Large numbers of patients screen positive for mental illness who do not have their mental health need addressed during their primary care visit. This seems an issue rooted in a lack of psychoeducation about what is mental vs physical illness, female specific access to care, stigma towards mental illness, and cross-SES-communication. Improved communication in primary care settings might significantly reduce the untreated mental illness gap reported in the literature.

Keywords: *Mental Health; Primary Care; Lebanon's Shatila; Palestinian Refugee Camp*

Introduction

Unmet mental health service need is usually addressed by considering the difference between epidemiological estimates of the "true" prevalence of mental illness and the numbers of patients who receive treatment for their condition. Differences between "true" and treated prevalence are often attributed to factors inhibiting patient access to medical care [1]. In primary care settings, an "unattended mental

health need" can be defined as the extent to which a serious mental illness (SMI), extant during a patient contact, remains unaddressed, unrecognized, undocumented, or absent from consideration. It is an index of a mental health service gap extant among patients who have accessed a service provider but whose SMI remains unattended to. While the integration of mental health care and primary care is an objective of first world nations [2,3], in most Middle Eastern countries, given the limited number of specialist providers, it is the default norm [4]. In Lebanon, 17% of the general population met criteria for at least one DSMIV/CIDI mental disorder [4]. Though, it is reported that only 10.9% have obtained mental health treatment and two-thirds of that treatment was provided in the general medical sector [4], no estimates are available as to the numbers of patients actually accessing primary medical care whose mental illness remains unattended to during their primary care visits—i.e. where mental health treatment could have been offered but was not. This study will determine the prevalence of such mental health need in primary care in Shatila and consider the relative importance of various factors associated with this lack of attention to mental illness.

Methods

The University of California, Berkeley, Mental Health and Social Welfare Research Group's, Mack Center on Mental Health and Social Conflict project completed data collection involving researcher-administered surveys at two primary-care clinics in Shatila between June 2012 and June 2013 (n = 254). Patients ≥ 18 years were recruited in the clinic waiting rooms via convenience sampling. Of 290 approached, 87.6% gave informed oral consent. Surveys were administered in private areas. Committees for Human Subject Research at all participating institutions approved study protocols.

Instruments and measurement

The structured, seven-page-survey required 30 - 45 minutes to complete. It inquired into participant mental health and into potential contributors to their mental health sstatus--i.e. participants' demographic characteristics, social circumstances, medical history, and health behavior. Information on patient attitudes toward the mentally ill and religious beliefs was obtained only from the last 136 interviewees. Questions related to this issue were added to the study given feedback from initial interviews.

Unattended mental health need was defined by the patient's positive screen (coded 1 = positive/0 = negative) for any severe mental illness (SMI), PTSD, or a psychotic-spectrum disorder accompanied by a report that s/he did not discuss a psychological problem with the physician, had no record of mental illness, and was not taking a major tranquilizer (determined from a review of the medications s/he did report taking). Standard mental illness screens used to assess the presence of any disorder included: The K6 measure of General Mental Health Symptomology for SMI; the Primary Care-PTSD screen (PC-PTSD); and, The Mini International Neuropsychiatric Interview (MINI), Schedule C for Non-Affective Psychosis [5].

The K6, a screen for severe mental illness (SMI) was developed by the Harvard School of Medicine with support from the U.S. government National Center for Health Statistics [6]. The Arabic K6 version was previously validated for use in Lebanon [7]. K6 responses about symptoms are standardized via a 5-point-Likert scale ranging from 0 = "All the time" to 5 = "None of the time" --higher scores indicating the absence of symptomology (reverse coded from the original Kessler., *et al*. 2003 version [6]). The scale does not address psychotic symptomology. Scores for the six-item screen range from 6 to 30. A K6 score of 6 to 18 is considered a positive-screen for SMI. The K6 reliability measured by Chronbach's Alpha is .88; its sensitivity and specificity .36 and .96, respectively, with a score of 18 and lower for diagnosing the presence of any 30-day DSM-IV disorder [8]. K6 reliability in the current sample was Alpha = .84 (N = 254).

The PC-PTSD is used in medical settings in the U.S. and among veterans to screen for PTSD [9]. It documents participant-reported PTSD symptoms employing a dichotomous Yes/No response. PC-PTSD reliability in the current sample was Alpha = .58 (N = 250). Participants' results were considered "positive" for a PTSD diagnosis if they answered "Yes" to any three or more items [9]. PC-PTSD has a test-retest reliability of 0.83. The sensitivity and specificity of the PC-PTSD with a score of three and higher for diagnosing a case of PTSD are respectively 76% and 93% (ACP Depression Care Guide, 2014) and 85% and 82% [10].

A Modified-Mini Screen based on The Mini International Neuropsychiatric Interview (MINI); Schedule C [5,11] was used to assess the presence of psychosis. Three Yes/No questions addressing negative symptomology associated with Schizophrenia were added to the seven positive symptomology questions in the Modified-Mini. A score ≥ 6 was deemed to place a person "at moderate likelihood of having a mental illness [that required] further clinical assessment [11]". The Scale's reported sensitivity and specificity are respectively: 80% and 97% [12].

Potential contributors to unattended mental health need were organized to include indicators of the patient's health status, primary care service characteristics, patient perceived obstacles to receiving care, and patient beliefs about mental illness.

Health status measures included a physical health status component score derived from patient reports indicating they: "engaged in regular exercise," "did not smoke" and an evaluation of their health record indicating they: "did not require continuous medical oversight." Higher scores indicated poorer health status. Component scores were derived with regression methodology in a principal component analysis of the three indicators. Also considered was a measure of patient attribution of their psychological problems to physical illness based on patient reports indicating "Some or less" = 0; "All or most" = 1.

Primary care characteristics measured included indications of whether the patient had a regular care provider (coded 1 = yes, 0 = no), had access to a provider for advice or assistance (coded 1 = yes, 0 = no), and the cost of medical care to the patient, as cost may discourage patients from raising mental illness issues with doctors.

Obstacles to primary care measured included indications of a patient's belief that the physician overlooked mental illness symptoms (coded, yes = 1, no = 0), that he/she had insufficient funds to pay for care (coded yes = 1, no = 0), had other personal issues preventing access (e.g. transportation, scheduling, time, newness to camp) (coded yes = 1, no = 0), and/or had issues with the clinic structure (e.g. wait time, perceived substandard care, or limited availability of care) (coded: yes = 1, no = 0). Such obstacles may inhibit communication or cause friction resulting in a lack of attention or simply mean the clinic does not have the time to invest in mental health issues.

Patient beliefs about mental illness measures included: The Attitudes Toward People with Mental Illness Scale (ATMI-4), a five-item assessment (with six responses in Likert, agree/disagree-format to each item, yielding a possible score from 4 = most rejecting to 24 = most accepting) reflecting patients' attitudes toward others with mental illness. The scale additionally measures self-stigma among patients with a disorder [13]. Also measured was the patient's belief in coping via religion, an effective alternative to professional intervention. Patients were asked to indicate was measure the extent to which religious beliefs enabled them to handle their psychological problems (scored: 5 = "Not at All" to 1 = "All the time").

Demographics and social circumstance measures taken into account included: age at time of interview; gender (1 = Female, 0 = Male); and refugee status. The later may have influenced attention received because for Palestinians it is long-term, Syrian refugees are new arrivals (having more than doubled Shatila's population since 2011 [14]) and non-refugees living in the camp had potential long term associations with the clinic. The three groups were coded as 1/0 variables (1 indicating the identified group, 0 "others").

Other social circumstance measures included were: Time living in Shatila (coded in years) as continuity of care knowledge may advantage the long-termers over "new comers"; and, socio-economic status (SES)--which is generally associated with mental health status. SES status was measured by a component score derived from regression methodology based on patient reports indicating that they "lived in stable housing," (usually meaning they owned rather than rented), "were employed full-time," and "had sufficient income." Higher scores indicated higher SES.

Data analysis

The data were analyzed using IBM SPSS Statistics version 21 (2013). Univariate statistics, Chi Square and one-way ANOVA, were used to provide descriptive statistics; Principal Component analyses to create socioeconomic status (SES) and health measures; Logistic regression to determine which inputs were contributors to unattended care. The multivariate approach (using only those variables with information available for the total sample (n = 245)) regressed "unattended positive mental illness screen status" on: participants' health scores, the patient's relationship with the primary care clinic, and the obstacles patients reported to receiving medical care--taking account of their demographics and social circumstances--as a means of determining the relative importance of these potential contributors. Two of the three refugee membership groupings were included in each model, the third being the contrast. To insure no differences were accounted for by variance in the contrast group the models were rerun rotating the contrast. The process did not alter the results thus 1/0 variables for Palestinians and Syrians with the non-refugees as the contrast are reported herein.

Results

The sample (n = 254) included 55% (n = 140) females and 45% (n = 114) males, aged 18 - 89 (Mean = 40.4; SD = 13); 73.9% (n = 187) were married; 72.5% (n = 185) reported less than a high school education; 18% (n = 46) reported no education at all. On average people lived in the camp for 21.1years (± 17) and were more likely to report having stable housing 63.4% (n = 161) than not (See table 1).

Respondent Characteristic	Total Sample N (%)/Mean (SD)	Group 1: Negative on Mental Illness Screens N (%)/Mean (SD)	Group 2: Positive Screens for Mental Illness: Attended to in Primary Care N (%)/Mean (SD)	Group 3: Positive Screens for Mental Illness: Unattended to in Primary Care N (%)/ Mean (SD)	X^2 or F/DF/P value (Bonferroni Between Group Differences: p ≤ .05)
	254 (100%)	**122 (48%)**	**15 (6%)**	**117 (46%)**	
Demographics and Social Circumstances					
Age (Min/Max 18-89)	40.4 (13.5)	39.6 (14.2)	42.4 (12.4)	41.0 (12.9)	F = .51/2,251/.599
Gender					
Female	140 (55.1)	49 (40.2)	11 (73.3)	80 (68.4)	X^2 = 21.35/2/.000
Male	114 (44.9)	73 (59.8)	4 (26.7)	37 (31.6)	
Refugee Status					
-Palestinian Refugee -Syrian Refugee -Non-Refugee	161 (63.4)	81 (66.4)	9 (60.0)	71 (60.7)	X^2 = 1.65/2/.799
Syrian Refugee	47 (18.5)	20 (16.4)	4 (26.7)	23 (19.7)	
Non-Refugee	46 (18.1)	21 (17.2)	2 (13.3)	23 (19.7)	
Shatila Residence (Years)	21.1 (17.0)	23.6 (16.0)	25.5 (19.7)	18.1 (17.2)	F = 3.45/2,251/.033
SES Component Score (Higher score = Higher SES)	.00 (1.0)	.27 (.91.)	-.29 (.89.)	-.25 (1.03)	F = 9.11/2,251/.000

Health and Illness					
Health Component Score (Higher score = Poorer Health)	.00 (1.0)	-.00 (1.02)	-.27 (1.13)	-.04 (.96)	F = .67/2,251/.514
Mental Illness due to physical illness: Some or Less	202 (79.8)	114 (94.2)	10 (66.7)	78 (66.7)	X^2 = 29.77/2/.000
-All or most	51 (20.2)	7 (5.8)	5 (33.3)	39 (33.3)	
Beliefs Regarding Mental Illness					
(Additional Questions Added for Last 135 Enrollees)	Mean (SD) N = 135	N = 68	N = 6	N = 61	
Attitudes toward the Mentally Ill (High Score Positive, Low Negative)	13.4 (6.0)	14.7 (5.4)	15.1 (6.2)	11.8 (6.3)	F = 4.18/2,132/.017
How much do your religious beliefs enable you to handle the problems you have? (Low Score = "All the time"; High score = "Not at all")	2.1 (1.3)	1.7 (1.0)	3.0 (1.7)	2.6 (1.4)	F = 9.69/2,132/.000

Table 1: *Demographic, social, disability characteristics, and beliefs of primary care patients by their mental health screen status and patient service outcomes.*

** Of the 46 non-refugee sample members with other nationalities, 43 were Lebanese representing 16.93% of the total sample, 2, Egyptian (0.79% of the total), and 1 Tunisian, 0.39% of the total sample.*

Fifty-two percent (N = 132) screened positive for mental illness; 35%, SMI-alone; 5%, PTSD-alone; 11%, co-morbid-SMI/PTSD, and 0.1% co-morbid-psychotic-spectrum-disorder- SMI-PTSD.

Of those who screened positive for a mental disorder, 11.4% (15 of 132) reported speaking to their physician about mental illness or had an acknowledged record of psychological problems. Thus, according to patient self-reports, 88.6% (n = 117) were cases of unattended to mental illness. Of these 117 cases: 98 (83.8%) at the time of interview had mental health conditions that were the "same or worse than usual," and 51 (43.6%) had greater than two weeks during the past thirty days when they were unable to work because of their mental illness. None of these statistics differed significantly between those 15 individuals whose mental illness was addressed and those in the unattended to group.

Univariate descriptive tests (See table 1 and 2) indicate that patients who screened negative for mental illness, those with attended to mental illness, and the unattended mentally ill differed in their social and psychological characteristics as well as their relationship with

the primary care setting. Positive-screens were significantly more likely to be from females [EXP(B) = 2.93.; CI: 1.66 - 5.15], have lower SES [EXP(B) = 0.62.; CI: 0.46 - 0.83], report their psychological symptoms were due to physical illness [EXP(B) = 6.57.; CI: 2.74 - 15.75], and believe their provider ignored their symptoms [EXP(B) = 3.50.; CI: 1.52 - 8.06].

Characteristic	Total Sample N (%) Mean (SD)	Negative on Mental Illness Screens	Recognized- Positive Screens for Mental Illness	Unattended-to-Positive Screens for Mental Illness	X^2 or F/ DF/P value
	254 (100%)	**122 (48%)**	**15 (6%)**	**117 (46%)**	
Primary Care Service Characteristics					
Patient has regular care provider					X^2 = 4.00/2/.136
No	88 (34.6)	35 (28.7)	7 (46.7)	46 (39.3)	
Yes	166 (65.4)	87 (71.3)	8 (53.3)	71 (60.7)	
Patient has access to provider for advice or assistance					X^2 = 9.39/2/.009
No	95 (37.4)	34 (27.9)	6 (40.0)	55 (47.0)	
Yes	159 (62,6)	9 (72.1)	9 (60.0)	62 (53.0)	
Reported Obstacles to Care					
Provider ignored or overlooked symptoms					X^2 =
No	220 (86.6)	114 (93.4)	10 (66.7)	96 (82.1)	
Yes	34 (13.4)	8 (6.6)	5 (33.3)	21 (17.9)	
Insufficient Funds					X^2 =
No	170 (66.9)	86 (70.5)	8 (53.3)	76 (65.0)	
Yes	84 (33.1)	35 (29.5)	7 (46.7)	41 (35.0)	
Personal Issues (e.g. transportation, scheduling, time, newness to camp)					X^2 = 2.09/2/.353
No	211 (83.1)	105 (86.1)	11 (73.3)	95 (81.2)	
Yes	43 (16.9)	17 (13.9)	4 (26.7)	22 (18.8)	
Clinic Issues (e.g. wait time, substandard care, limited availability)					X2 = 2.12/2/.346
No	214 (84.3)	107 (87.7)	12 (80.0)	95 (81.2)	
Yes	40 (15.7)	15 (12.3)	3 (20.0)	22 (18.8)	

Table 2: *Patient reported characteristics of the primary care service and obstacles to care.*

Unattended positives were distinguished ($p < .05$) by having fewer years of Shatila residence [EXP(B) = .0.98; CI: 0.96 - 0.99], having less access to a provider for advice or assistance [EXP(B) = .0.44; CI: 0.25 - 0.74], having more negative attitudes toward people with mental illness [EXP(B) = 0.92.; CI: 0.86 - 0.98], and more faith that their religious beliefs would enable them to cope with psychological problems [EXP(B) = 1.60.; CI: 1.21 - 2.12].

The multivariate Logistic model (See table 3) taking all factors into account (excepting attitudes toward the mentally ill and religious coping with psychological problems (i.e. given the limited number of respondents to these questions) indicated: Patient ability to access a provider for advice or assistance when needed decreased one's chance of being an unattended-positive screen by 58% [EXP(B) = .0.42; CI: 0.20 - 0.88]. A patient's report that all or most mental illness was due to physical illness increased one's chance of being an unattended-positive-screen by 5.26 times [EXP(B) = 5.26; CI: 2.36 - 11.74]. Females were 2.20 times [EXP(B) = 2.20; CI: 1.22 - 3.95] more likely to be unattended-positives than their male counterparts. Higher SES was associated with a decreased chance of being an unattended-positive by 44% [EXP(B) = 0.66; CI: 0.48 - 0.89].

Criterion	Unattended-to-Positive-Screen[a]				95% C.I. for EXP(B)	
Determining Factors	**B**	**SE**	**P**	**Exp(B)**	**Lower**	**Upper**
Health Indicators						
Health factor score (Includes: "Smoking", " No exercise." Higher score = poorer health)	.17	.16	.294	1.18	.864	1.62
Patient reports all or most mental illness is due to physical Illness	1.66	.41	.000	5.26	2.36	11.74
Primary Care Service						
Has regular care provider	.02	.37	.952	1.02	.49	2.13
Access to a provider for advice or assistance when needed	-.86	.37	.021	.42	.20	.88
Cost of care	-.00	.00	.635	.99	.99	1.00
Reported Obstacles to Care						
Symptoms ignored by clinician	.42	.47	.375	1.52	.60	3.86
Insufficient funds for care	-.36	.33	.276	.70	.37	1.33
Personal issues (e.g. transport)	-.20	.41	.617	.81	.37	1.81
Clinic issues (e.g. wait time) (yes = 1, no-0)	.06	.44	.887	1.06	.45	2.52
Demo/Social Circumstances						
Age	.01	.01	.551	1.01	.98	1.03
Gender (Female = 1; Male = 0)	.79	.30	.008	2.20	1.22	3.95
Palestinian vs. others	-.08	.40	.839	.92	.42	2.02
Syrian vs. others	-.49	.53	.350	.61	.22	1.72
Years of residence in Shatila	-.02	.01	.092	.98	.96	1.00
SES factor score (Includes Stable Housing, Sufficient Income and Paid Employment)	-.42	.16	.008	.66	.48	.89
Model Summary:	[a]Chi Sq = 60.97; df = 15; p = .000					

Table 3: *Factors contributing to unattended to serious mental illness in primary care (N = 254).*

Discussion

The finding of 51.6% screening positive for SMI, PTSD, and psychotic-spectrum disorder with high comorbidity in a primary care setting is a clear indication of an under- resourced system that requires greater attention to mental health needs of presenting patients. This is especially true since the major survey of the mental health needs of the Lebanese population reports that two-thirds of mental health treatment in Lebanon is provided in the general medical sector [4]. Given this assertion it is especially problematic to note that 88.6% of those with positive mental health screens were cases of unattended mental illness. Study findings further indicated that these conditions were stable and disabling with 83.8% of them reported as being the "same or worse than usual" and 43.6% involving periods of greater than two weeks during the past thirty days when the patient was unable to work because of their mental illness. These results are confirmatory of the conclusions previously reported in the literature indicating that such patients remain inadequately diagnosed and treated [15-17] despite recognition of the issue and attempts to provide resources to cope with the disease [3].

While most of the factors considered with respect to unattended status generally distinguished between positive and negative-screens, most notable among the study findings is that unattended-positives are distinguished from other patients with or without mental illness by the patient's perception that they do not have access to a provider for advice and assistance. Lack of such access increases the likelihood that their mental illness will go unattended by 58% and appears to be a communication issue in service provision. While this result may (given the univariate results) be partially attributable to the patient's newness to the service, the lack of significance of camp residence duration in the multivariate model puts the burden on the communication itself-i.e. that patient's perception that despite visiting the primary care clinic and seeing a physician they do not have access to a provider for advice and assistance. It further offers what appears to be a new approach to this problem not addressed in this literature, one where patient/provider relationship building associated with improving communication skills needs to be a focus of future interventions. Such an approach would focus on efforts by the physician to enable patients to seek advice on their conditions and to engender trust that the physician is not ignoring or overlooking their symptoms (a factor 3.5 times more likely to be reported among positively-screened patients). Such reports may involve what has been referred to as "diagnostic overshadowing"-i.e. "…when symptoms of physical illness are attributed to the service user's mental illness, increasing the risks of treatment delay and the development of complications" --a phenomena that engenders mistrust and is sometimes an excuse for failure in primary care to attend to the needs of persons with mental illness [18].

The results also confirm the importance of attitudes toward mental illness, significantly negative in the Middle East, as a factor in unattended need [19-21]. For each point in the negative direction on the twenty-point range of the attitudes toward mental illness scale, there was an associated 8% increase in risk of becoming an unattended-positive-screen, one standard deviation increased one's risk by 48%. The importance of significant self-stigma indicated in the attitudinal response of the unattended positives might be the focus of relationship building interventions as well.

The strongest predictor in the multivariate model of unattended-positive-screen-status was the belief that the patient's psychological symptoms were due to their physical illness. It increased the probability of an unattended positive screen by more than five-fold. It is a clear indicator of a need for psychoeducation in the communication process. The importance of such psychoeducation in insuring the proper course of treatment cannot be underestimated- depression leads to failures in treatment compliance, lack of attention to one's on-going health requirements, and to "giving up hope"-a key factor in patient recovery from any physical illness. Failure to attend to the psychological component of physical health care is a clear contributor to negative outcomes in treatment [22-24].

Finally, the continually recurring risk characteristics-female gender [25,26] the second strongest contributor and lower SES [27,28]-remain important alerts for patient outreach as they add to the probability of having an unattended mental health condition.

Conclusions based on the study findings are descriptive and cross-sectional, locked in a point-in- time, and generalizable to the sample of patients interviewed. The reported contributors to unattended mental illness are associations, not established causation, yet the find-

ings document the extent of the problem, are consistent with clinical and empirical reports of obstacles related to failures to recognize and treat mental illness in primary care, and offer new points of intervention for improving the recognition of mental health need in primary care settings [29-33].

Conclusion

A very large number of primary care patients are screening positive for mental illness and do not appear to have their mental health care needs attended to during their service contact.

Their unattended mental illness status can result from a patient perception that they do not have access to a provider for advice and assistance-a communication issue in service provision that may be partially attributable to their newness to a service, as well as significant self-stigma, and compensation by reliance on their faith to enable their coping with their psychological issues. It would appear that a focus on improving communication around mental health issues through psychoeducation in the primary care setting would significantly enhance the ability of the patient to share their psychological problems with their primary care providers, address the psychological components of physical health care, and perhaps greatly enhance all health outcomes.

Conflict of Interest Statement

The authors are without conflicts of interest, including relevant financial interests, activities, relationships, and affiliations.

Availability of Data and Materials

Data will not be shared given initial agreement with data gathering sites.

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