Burden of Mental Health Among Lebanese Children and Adolescents and Strategies to Improve Access to Care

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Outline

• Introduction

• Beirut Epidemiological Investigation of the Psychiatric Status of Youth (BEIPSY)

• Psychopathology in Adolescents in Lebanon Study (PALS)

• School-based interventions
Psychiatric Disorders in Children and Adolescents

Figure 1.
Cumulative Lifetime Prevalence of Major Classes of DSM-IV Disorders Among Adolescents
(N=10,123)

Polanczyk et al, 2015
## Top ten causes of years lived with disability by location in 2013

<table>
<thead>
<tr>
<th>Location</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>North Africa and Middle East</td>
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<td>MDD</td>
<td>Iron</td>
<td>Diabetes</td>
<td>Migraine</td>
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<td>Opioids</td>
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<td>COPD</td>
<td>Dermatitis</td>
<td>Diahroea</td>
<td>Conduct</td>
</tr>
</tbody>
</table>
Depressive disorders, anxiety disorders and conduct disorders are among the top 10 causes of burden of disease in youth in the EMR.

Major depression leading cause of morbidity amongst males aged 15–19 and 20–24 years and for females aged 20–24 years.

Karch et al, 2018
Beirut Epidemiological Investigation of the Psychiatric Status of Youth (BEIPSY)

- March 2012 – December 2012
- Multi-stage proportionate cluster sampling technique
- 510 children aged 11-17 from greater Beirut area
- The Development and Well Being (DAWBA) was used to establish psychiatric diagnoses

Maalouf et al, 2016
BEIPSY - Results

➢ Prevalence of Psychiatric Disorders:

Higher than world-wide prevalence of 21%

BEIPSY- Results

BEIPSY- Correlates

Unmarried parents  
OR=3.13

Not attending school  
OR= 2.7

Positive psychiatric family history  
OR= 1.92

chronic physical illness  
OR= 1.75

Being a bully (OR=1.17) or a victim (OR=1.3)

Has Your Child Ever Received Treatment?

- Yes: 6%
- No: 94%

➢ only 6% of adolescents with a psychiatric disorder had ever sought treatment vs
➢ 45% of US adolescents

Costello, et al.; psychiatric Services, 2014
Have You Ever Considered That Your Child Needs Professional Help?

Correlates of bullying and its relationship with psychiatric disorders in Lebanese adolescents

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\textbf{A B S T R A C T}

Understanding the contextual determinants of bullying behavior is pivotal for effective interventions. This paper describes the prevalence of bullying, its socio-demographic correlates and factors influencing its relationship with psychiatric disorders among a population-based sample of adolescents from Beirut recruited through a two-stage cluster sampling design. Recruited participants (n = 510) and their parents completed a battery of questionnaires and interviews including the Development and Wellbeing Assessment (DAWBA) and the Peer-Relations Questionnaire (PRQ). We found that around 30% of the adolescent participants were involved in bullying. Younger age, lower family income, lower parental education, receiving private tutoring, having an anxiety disorder and having a disruptive behavior disorder were correlated with being bullied by peers while lower family income, repeating a school-grade, and having a disruptive behavior disorder were associated with bullying others. Several factors including gender, age group, family income, and attending private versus public schools moderated the relationship between bullying behavior and having psychiatric disorders. Our findings thus highlight the complexity of the association between psychiatric disorders and bullying in settings like Lebanon,
# BEIPSY- Bullying

<table>
<thead>
<tr>
<th></th>
<th>No Involvement in Bullying</th>
<th>Bully/Victim</th>
<th>Bully Only</th>
<th>Victims Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalizing Disorders</td>
<td>Reference</td>
<td>5.38 [2.39, 12.20]</td>
<td>3.04 [1.53, 6.02]</td>
<td>1.90 [0.74, 4.90]</td>
</tr>
<tr>
<td>Emotional Disorders</td>
<td>Reference</td>
<td>4.40 [2.10, 9.26]</td>
<td>1.05 [0.50, 2.18]</td>
<td>3.53 [1.76, 7.09]</td>
</tr>
</tbody>
</table>

Halabi, et al.; Psychiatry Res, 2017
Psi Nationally representative household sample of 1517 children and adolescents (5-17 years)

Psi Multi-stage cluster probability sampling technique.
5 - 8 YEARS OLD

- Emotional Disorder, 0.9%
- ADHD, 2.1%
- Externalizing Disorder, 2.6%
- Screened negative for psychiatric disorder (96.6%)
- Screened positive for psychiatric disorder (3.4%)

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8-12 YEARS

- Screened negative for psychiatric disorder
- Screened positive for psychiatric disorder

Depressive Disorder, 4.7%
Anxiety Disorder, 24.1%
Externalizing Disorder, 2.2%
ADHD, 1.9%
Emotional Disorder, 0.1%
12 - 17 years 11 months

- Smoked waterpipe, 11.8%
- Drinking alcohol, 5.8%
- Smoking cigarettes, 5.3%
- Emotional Disorder, 2.5%
- ADHD, 2.5%
- Externalizing Disorder, 3.6%
- Depressive Disorder, 8.0%
- Anxiety Disorder, 21.7%

Screened negative for psychiatric disorder
Screened positive for psychiatric disorder
PALS- Correlates

- Increased age
  OR= 1.096

- Poor academic performance
  OR= 5.251

- Female Gender
  OR= 1.512

- History of traumatic life event
  OR= 3.425

- Low income
  OR= 1.584

- Being a bully (OR= 1.783), a victim (OR= 3.698) or bully/victim (OR= 3.981)
Only 6.1% of children that screened positively for a psychiatric disorder ever sought mental health care.
Barriers to seeking mental health care

In our sample, barriers to seeking professional mental healthcare

Ψ Discomfort in discussing mental health concerns ➔ 7.6%
Ψ Concerns about stigmatization ➔ 13.6%
Ψ Distrust in efficacy of mental healthcare services ➔ 17.5%
Ψ Cost of mental health services ➔ 24.8%
Ψ Unavailability of nearby mental health services ➔ 26.4%
Call to Action: Bridging the Gap

Reach them where they are

• Expand access to mental health services in community-based settings priority on the global mental health agenda.
Strategies to Improve Access to Care

Schools are key community settings for promoting mental health in youth.

Ψ School-based interventions have proven effective in school and community settings.

Ψ Most interventions were tested in high income countries (HIC), few in low-middle income countries (LMIC).

Fazel, et al., Lancet Psychiatry, 2014
Barry, et al., BMC Public Health, 2013
School-based Intervention
Building Emotional resilience in Lebanese Youth

Harvard Medical School Center for Global Health Delivery-
Dubai

American University of Beirut
FRIENDS Program

Ψ A cognitive behavioral school-based intervention that aims at building resilience of individuals and families across the lifespan

Ψ Originally written in English ➔ has been translated to several other languages

Ψ Has been successfully implemented in HIC as well as LMIC, such as Brazil and Mexico

Ψ Endorsed by the World Health Organization as best practice for the prevention and treatment of anxiety and depression
FRIENDS Program: Adaptation
= Feelings
= Remember to relax
= Inner helpful thoughts
= Explore solutions and Step Plans
= Now reward yourself!
= Do it every day!
= Stay strong inside

مشاعر
تذكر أن ترتاح
أفكار داخلية مفيدة
استكشف الحلول وضع الخطط
الآن كافيء نفسك!
أفعالها كل يوم!
ابق قوياً من الداخل

تعلم كيفية التعرف إلى مشاعرك وإدارتها وإظهار التعاطف مع مشاعر الآخرين
احصل على وقت هادئ، ركز على الحاضر، وأصبح أكثر وعياً.
استبدل التفكير الغير مفيد بتفكير مفيد.
تعلم إيجاد حلول للمشاكل ومواجهة التحديات.
حاولت أفضل ما لديك، كن سعيداً مع نفسك.
حاول استخدام مهارات التأمل الجديدة الخاصة بك عندما تواجه المواعف الصعبة.
شارك المهارات الخاصة بك مع عائلتك والمجتمع. هم مجموعة دعمك.
Adaptation to Lebanese Context: Examples

In addition to the purpose and the reminder to the people that we have a role in supporting the figures in our lives. This approach requires that we understand and respect the nature of the role of the role. It is possible that any individual understands the nature of the role and is interested in working with others, and is interested in them, one of your friends or personally in your work or in your community. In this case, we may be a source of inspiration, and if you are interested, you should be interested in their achievements and their contribution, their personal, their professional, or their music. There are many examples of this that can be found in the Arabic text. Some Lebanese personalities are:

2. A Lebanese woman called: "Kun Saida l'ain" or "Kun Saida Doma", both were happy and always.

"La bache, masalak hikmati tanjadda muwad, kun Saida Doma, Kun Saida ona."
الخطوة 1 من خطة الأصدقاء (FRIENDS)

مشاعر

حرف F هو حرف FRIENDS، الحرف الأول من خطة الأصدقاء. مشاعر هي طريقة جسدك لقولك ما يدور بداخلك. يبدو ذلك بسيطًا، ولكن في بعض الأحيان المشاعر ليست واضحة، ومن الصعب فهمها إذا كان مهمًا أن تعطيها اهتمامًا، ما يمكننا التعرف عليها ومساعدتنا في تطهيرها. وهذا مفيد لأننا في بعض الأحيان نشعر بأنفسنا قيودًا مثل الغضب والخوف، ويمكن لهذه المشاعر أن تكون قوية جداً بحيث ننكمش نداً من العالم. عندما نتعلم تنظيم هذه المشاعر، تصبح أسرع سيطرة على نفسنا وأقل تسرعاً، وذلك أفضل بكثير.

جميعنا يشعر بالسعادة، بالحماس، بالخوف، بالغضب أو القلق في بعض الأحيان، إنه جزء من كوننا كيما! في أوقات مختلفة، نشعر بما يسمى «iesz» أو شدة مختلفة ونعمل خاصًا على ذلك. يمكن أن تكون هذه الأدوات ميزاناً حرارياً للمشاعر الخاص بك.

«ميزان حرارة للمشاعر»

عندما نصبح أكثر معرفة بالأشياء التي يمكننا إيها جسمنا، يمكننا التعرف على هذه المشاعر في وقت مبكر. حين تكون شدتها معتدلة ونأخذ الحوافه اللازمة لضبطها وتطهيرها، حيث لا نزال يمكننا التحكم بها، أي إيقاف هدوئنا.

المشاعر هي طريقة يعبر بها الجسم عن نفسه.
Identifying Emotions

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
</tr>
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<tbody>
<tr>
<td>فضولي</td>
<td>Excited</td>
</tr>
<tr>
<td>عازف</td>
<td>Happy</td>
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<tr>
<td>خائف</td>
<td>Scared</td>
</tr>
<tr>
<td>مهتم</td>
<td>Interested</td>
</tr>
<tr>
<td>ضاج</td>
<td>Mad</td>
</tr>
<tr>
<td>مذنب</td>
<td>Nervous</td>
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<tr>
<td>متحمس</td>
<td>Enthusiastic</td>
</tr>
<tr>
<td>محرج</td>
<td>Angry</td>
</tr>
<tr>
<td>آخر</td>
<td>Mad</td>
</tr>
<tr>
<td>مكتتب</td>
<td>Busy</td>
</tr>
<tr>
<td>عاجز</td>
<td>_Lonely</td>
</tr>
<tr>
<td>مرح</td>
<td>Joyful</td>
</tr>
<tr>
<td>في قمة السعادة</td>
<td>Happy</td>
</tr>
<tr>
<td>داعم</td>
<td>Supportive</td>
</tr>
<tr>
<td>مستريح</td>
<td>Calm</td>
</tr>
<tr>
<td>مذكور</td>
<td>Famous</td>
</tr>
<tr>
<td>من نفسه</td>
<td>Himself</td>
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<tr>
<td>راض</td>
<td>Satisfied</td>
</tr>
<tr>
<td>قلق</td>
<td>Anxious</td>
</tr>
</tbody>
</table>
النشاط: مسار الأفكار - المشاعر - السلوك

<table>
<thead>
<tr>
<th>الأفكار الخضراء</th>
<th>الأفكار الحمراء</th>
<th>المشاعر</th>
<th>السلوك</th>
</tr>
</thead>
<tbody>
<tr>
<td>تقدم! مفيدة أو إيجابية</td>
<td>قف! غير مفيدة أو سلبية</td>
<td>سأشعر بالثقة والاسترخاء.</td>
<td>سأقوم بالأعمال الصغيرة، تسهل دراستها.</td>
</tr>
<tr>
<td>حصلت على علامة منخفضة على امتحانك</td>
<td>أنا فشلت! لن أصبح واثقاً أبداً من اللغة الإنجليزية</td>
<td></td>
<td>سأقوم بالحزن والكتاب.</td>
</tr>
<tr>
<td>لقد فعلت ما بوعسي هذا يشكل 10% فقط من علامتي النهائية. إذا قمت بجهد أكبر، سأحصل على نتيجة أفضل في المرة القادمة! أستطيع القيام بذلك!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>أسأل المعلم عن طرق لتحسين أدائي وكيفية تنظيم درسي إلى مقاطع صغيرة، تسهل دراستها.</td>
<td></td>
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</tr>
</tbody>
</table>

اللغة الإنجليزية:

Your question seems to be in Arabic and it asks about a table with scenarios for negative and positive thoughts, feelings, and actions. The table is designed to help individuals manage their emotions and behaviors. The scenarios include:

- **Positive Thinking (Green Light):**
  - You received a low grade on your exam.
  - You have made progress, it's either helpful or positive.
  - You will make another effort.

- **Negative Thinking (Red Light):**
  - You failed!
  - I won't become confident in English again.

- **Feelings:**
  - You will feel confident and relaxed.

- **Actions:**
  - You will feel sad and write.
  - You will ask your teacher about improving your performance and organizing your studies into smaller segments.

The table provides a framework for individuals to manage their emotions and actions based on their performance and feedback.
FRIENDS Program: Implementation

Program was implemented in 5 schools between March and June 2017.

Remaining 5 schools were waitlisted.
Parents Recruitment Sessions
Implementation Team
FRIENDS Program: Results

SDQ Emotional

Significant Time*Group Interaction (Wald Chi Square=6.686; p=0.01)
FRIENDS Program: Results

SDQ Emotional

Significant Time*Group Interaction (Wald Chi Square=7.853; p=0.02)
Ψ Significant improvement in **depressive symptoms** in the intervention group. Time x group interaction for Total MFQ score \((p=0.047)\)

Ψ Subgroup analysis by gender showed significant time x group interaction for total SCARED score \((p=0.016)\) in females indicating improvement in **anxiety symptoms** in females in the intervention group compared to control group
NEXT STEPS
Training Parents and Teachers on Resilience
Look at cognitive and biological predictors
Study impact on other variables

• Bullying

• Academic Performance

• Does it mitigate risk of screens?
Conclusion

Psi Mental and substance use disorders are prevalent among Lebanese youth, affecting almost 1 in 4 children/adolescents

Psi There exists a huge treatment gap for children with mental and substance use disorders

Psi Schools may prove to be an effective setting for addressing the treatment gap
Collaborators

AUB Team

Rima Afifi, PhD.
Leyla Akoury Dirani, PhD
Lilian Ghandour, PhD
Rima Nakkash, PhD
Farah Tabaja, MD
Loay Alrojolah, MD
Rinad Bakhti, MA
Maysam Alameddine, MA, MPH
Wael Shamseddeen, M.PH, M.D

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• Anne Becker, MD, PhD
• Courtney Yuen, Ph.D.
References


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