



**Mental Health Research**  
**and the Sustainable**  
**Development Goals**  
**(SDG's)**

**Examples from Pakistan**

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Director Global Mental Health  
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*Lead Culture & International Mental Health Research Group*  
*Lancashire and South Cumbria NHS Foundation Trust*

MANCHESTER  
1824

The University of Manchester

*Manchester Global Mental Health and Cultural  
Psychiatry Research Group*



# Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews



*Crick Lund, Carrie Brooke-Sumner, Florence Baingana, Emily Claire Baron, Erica Breuer, Prabha Chandra, Johannes Haushofer, Helen Herrman, Mark Jordans, Christian Kieling, Maria Elena Medina-Mora, Ellen Morgan, Olayinka Omigbodun, Wietse Tol, Vikram Patel, Shekhar Saxena*

Mental health has been included in the UN Sustainable Development Goals. However, uncertainty exists about the extent to which the major social determinants of mental disorders are addressed by these goals. The aim of this study was to develop a conceptual framework for the social determinants of mental disorders that is aligned with the Sustainable Development Goals, to use this framework to systematically review evidence regarding these social determinants, and to identify potential mechanisms and targets for interventions. We did a systematic review of reviews using a conceptual framework comprising demographic, economic, neighbourhood, environmental events, and social and culture domains. We included 289 articles in the final Review. This study sheds new light on how the Sustainable Development Goals are relevant for addressing the social determinants of mental disorders, and how these goals could be optimised to prevent mental disorders.

## Introduction

The Sustainable Development Goals (SDGs), endorsed by all United Nations member states in 2015, represent an ambitious plan for sustainable human development by the year 2030.<sup>1</sup> In a departure from the Millennium Development Goals, mental health and wellbeing are specifically addressed under SDG 3, which emphasises the inclusion of mental health care in universal health coverage. The acknowledgment of mental health in the SDGs is important, since the global human suffering and financial costs associated with mental disorders are substantial and growing.<sup>2,3</sup> Investments in mental health care have the potential to increase the capabilities and productivity of affected individuals and families, as shown in a recent return on investment analysis.<sup>4</sup>

However, there is growing global evidence that mental disorders in populations are strongly socially determined.<sup>5,6</sup> The social determinants of mental disorders

countries, regarding the socioeconomic and violence-related factors that should be targeted for the prevention of mental disorders.<sup>5</sup> Although the SDGs set out to address several pressing global challenges—such as violence, climate change, displacement, and income inequality—little is known about the extent to which addressing these challenges might prevent or reduce the burden of specific mental disorders.

This study had two purposes: first, to develop a preliminary conceptual framework for the social determinants of mental disorders that is aligned with the SDGs; and second, to use this framework to systematically review evidence regarding the social determinants of mental disorders, with a view to identifying potential mechanisms and targets for interventions that address these determinants. This task requires the collection of available research literature on social determinants of mental illness across the life course from low income

*Lancet Psychiatry* 2018;  
5: 357–69

Alan J Flischer Centre for Public Mental Health, Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa (Prof C Lund PhD, C Brooke-Sumner PhD, E C Baron MSc, E Breuer MPH); Centre for Global Mental Health, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK (Prof C Lund, M Jordans PhD); Alcohol, Tobacco and Other Drug Research Unit, Medical Research Council of South Africa, Cape Town, South Africa (C Brooke-Sumner); World Health Organization Sierra Leone Country Office, Freetown, Sierra Leone (F Baingana MSc); Department of Psychiatry, National Institute of Mental Health and Neurosciences, Bangalore, India (Prof P Chandra MD); Princeton University, Princeton, NJ, USA (J Haushofer, PhD); Busara Center for Behavioral Economics, Nairobi, Kenya (J Haushofer); Orygen, The National Centre of

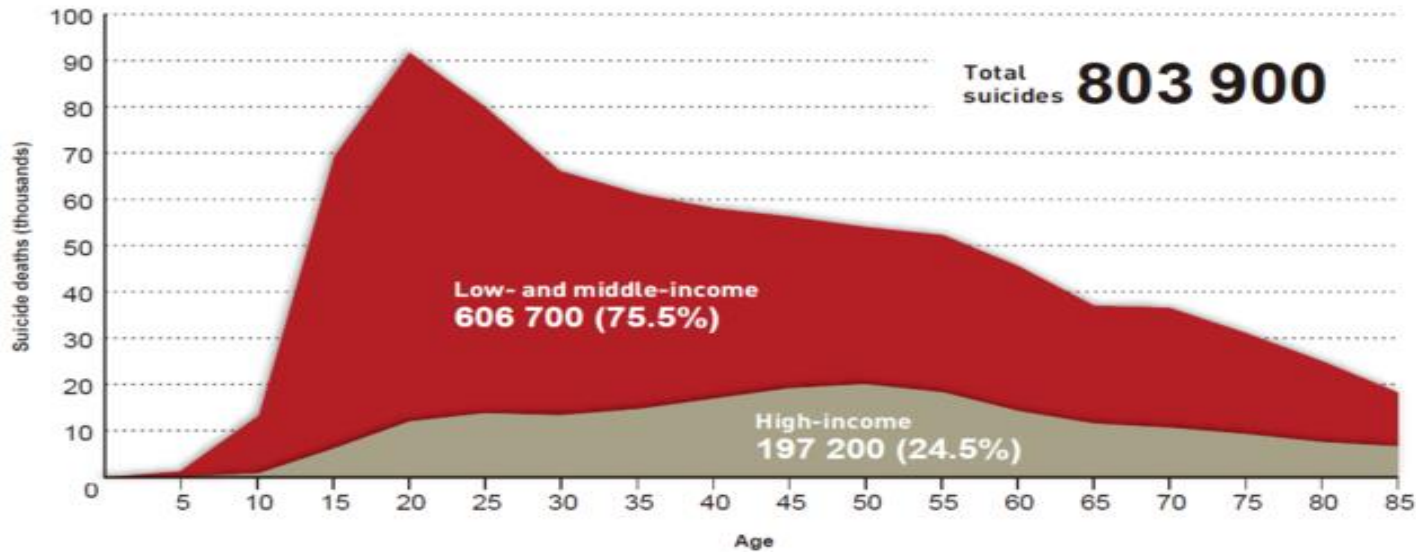


# Global burden of Mental Health

- **Global burden of mental illness accounts for 32·4% of years lived with disability (YLDs) and 13·0% of disability-adjusted life-years (DALYs), instead of the earlier estimates suggesting 21·2% of YLDs and 7·1% of DALYs.**
- **Currently used approaches underestimate the burden of mental illness by more than a third.**
- Five types of mental illness appear in the top 20 causes of global burden of disease (GBD):
  - major depression (second),
  - anxiety disorders (seventh),
  - schizophrenia (11th),
  - dysthymia (16th)
  - bipolar disorder (17th)



Figure 2. Global suicides by age and income level of country, 2012



## Suicide: facts and figures

Suicide is the **second** leading cause of death among **15-29** year-olds



Over **800 000** people die by suicide every year

1 death every **40** seconds

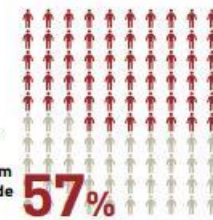


High-income countries **75%** of suicides occur in low- and middle-income countries



**Pesticides, hanging and firearms** are the most common methods used globally

There are more deaths from **suicide** than from war and homicide together



### Leading causes of death among those aged between 15 and 29 in India in 2010

Men	Estimated deaths	Percentage of overall deaths	Women	Estimated deaths	Percentage of overall deaths
Transport accidents	48000	14%	Maternal disorders	46000	16%
Suicide	45000	13%	Suicide	40000	14%
Unintentional injuries	40000	11%	Tuberculosis	30000	11%
Tuberculosis	34000	9%	Unintentional injuries	29000	10%
Cardiovascular diseases	25000	7%	Cardiovascular diseases	20000	7%

## Suicides are preventable



**Key is a comprehensive multisectoral approach**



Most countries currently do not have a **national suicide prevention strategy**

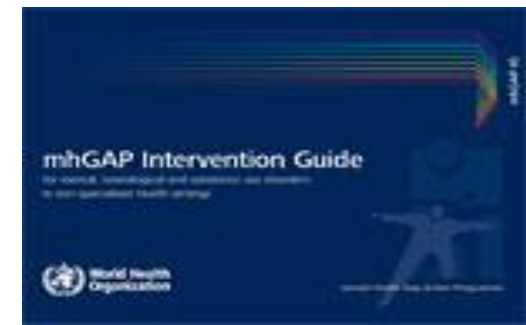
**10% reduction of suicide rates is the target in the Mental Health Action Plan 2013-2020**

# Grand Challenges IN GLOBAL MENTAL HEALTH

## A Call to Action

- 1) How do we cope with the existing burden?
- 2) How do we decrease future burden of mental disorders?
- 3) How can one incorporate care within existing health care systems?

The answers have to be worked out in the context that low income countries such as Pakistan has less than US \$20 per capita for the health care.

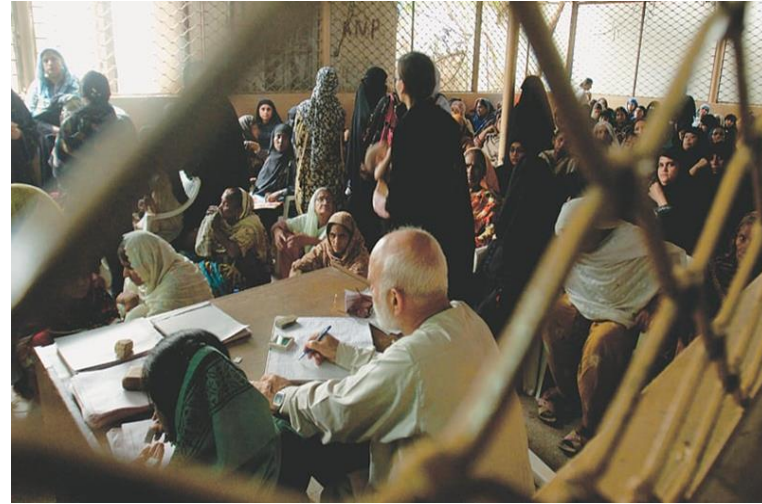


# UoM Psychiatry for Developing Countries



My clothes are torn  
There are holes in clothes  
Severe winter passes through these  
Scorching heat penetrates through these  
But never mind!  
One day I will find myself  
A needle to stitch them  
I will find cloth to patch them  
SO DON'T give me yours!!

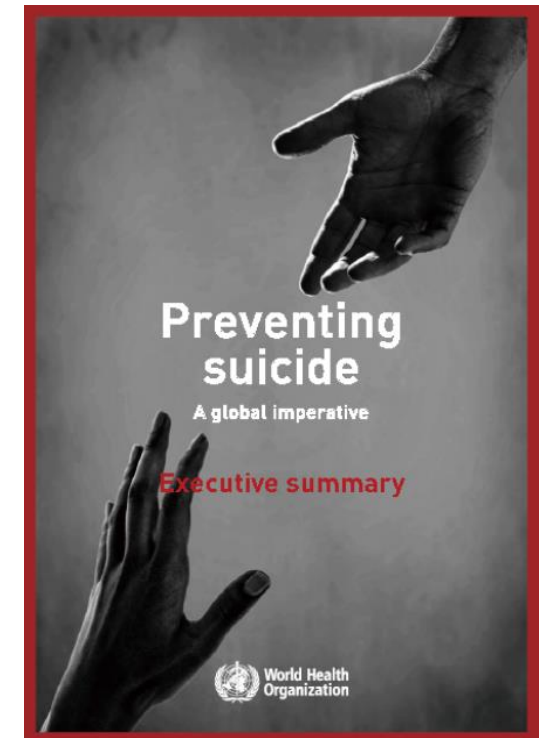
**Professor Dr. Malik  
Hussain Mubashir**



Emory University Atlanta, USA

# Suicide in Pakistan

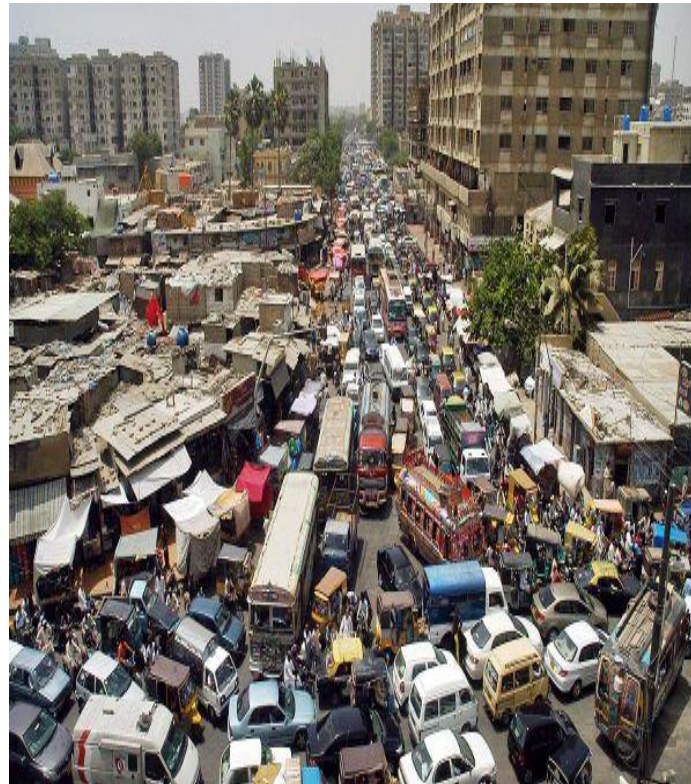
- High rates of suicide in Pakistan (*Khan et al 2008*)
- Suicidal behaviour (ideations, attempts, or completed suicides) is an understudied and under researched subject in Pakistan.
- In Pakistan both suicide and self harm till recently were illegal acts, punishable with a jail term and financial penalty, so most cases go unreported.



# Brief psychological intervention after self-harm Randomized Controlled Trial from Pakistan



To determine the effect of a brief psychological intervention, which has been culturally adapted to reduce suicidal ideation in individuals presenting after a recent episode of self harm





The British Journal of Psychiatry

# BJPsych

**Brief psychological intervention after self-harm: randomised controlled trial from Pakistan**  
 Nusrat Husain, Salahuddin Afsar, Jamal Ara, Hina Fayyaz, Raza ur Rahman, Barbara Tomenson, Munir Hamirani, Nasim Chaudhry, Batool Fatima, Meher Husain, Farooq Naeem and Imran B. Chaudhry  
*BJP* 2014, 204:462-470.  
 Access the most recent version at DOI: [10.1192/bjp.bp.113.138370](https://doi.org/10.1192/bjp.bp.113.138370)

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**References** This article cites 0 articles, 0 of which you can access for free at: <http://bjp.rcpsych.org/content/204/6/462#BIBL>

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**You can respond to this article at** <http://bjp.rcpsych.org/letters/submit/bjprcpsych;204/6/462>

**Downloaded** <http://bjp.rcpsych.org/> on July 8, 2014



# Intervention



- Brief problem focused therapy comprising of 6 sessions delivered within 3 months after a self-harm episode
- Weekly in the first two weeks and then fortnightly
- 50 minutes

خود کو نقصان پہنچانے کے بعد کی زندگی

**Life After Self - Harm**

مستقبل کے لئے رہنمائی کتابچہ

A guide to the future



Ulrike Schmidt and Kate Davison

تالیف و ترجمہ

روبینہ امین

عشرت حسین پاکستان انسٹیٹیوٹ آف لرننگ اینڈ لیوگ، کراچی، پاکستان

## + MRC/Wellcome Trust/DFID Jointly Funded Initiatives

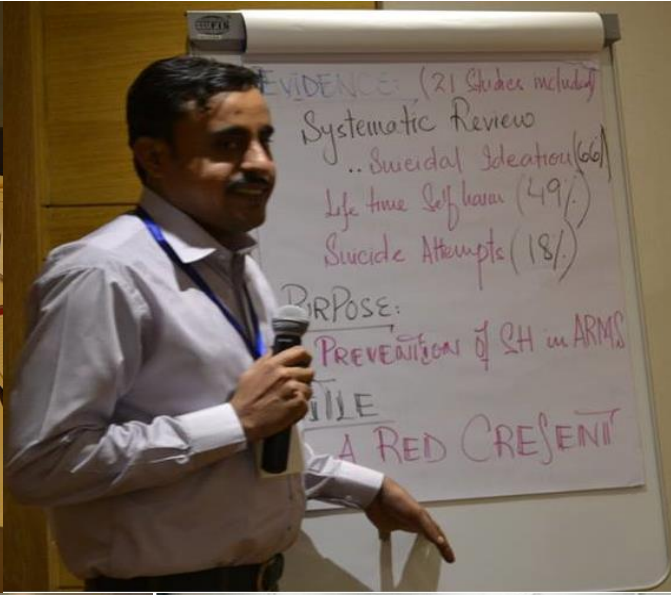
*Multicenter RCT to evaluate the clinical and cost-effectiveness of a culturally adapted therapy (C-MAP) in patients with a history of self-harm*

To assess the effectiveness of C-MAP compared to Treatment as Usual (TAU) as measured by repetition rates of self-harm at 12 months after randomization (N=901).





# Capacity and Capability Building



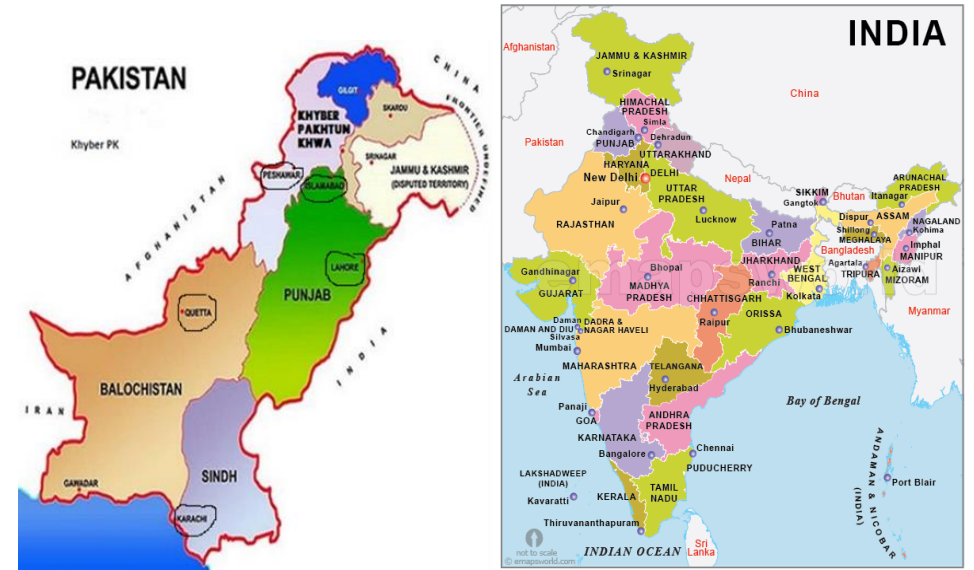
# South Asia Self Harm research capability building initiative (SASHI)



GCRF

## Five Work streams

1. Survey
2. Registers
3. Qualitative work
4. Training
5. Impact



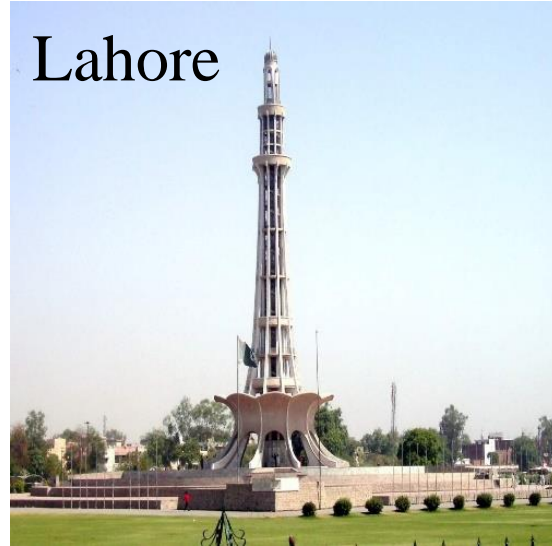
# A Youth Culturally adapted Manual Assisted Psychological therapy (Y-CMAP) for adolescent Pakistani patients with a recent history of self-harm.



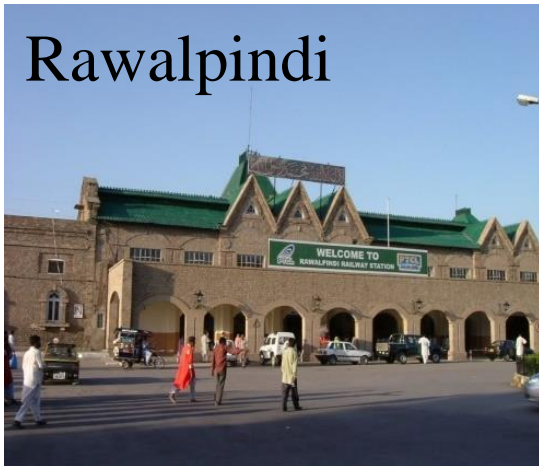
Karachi



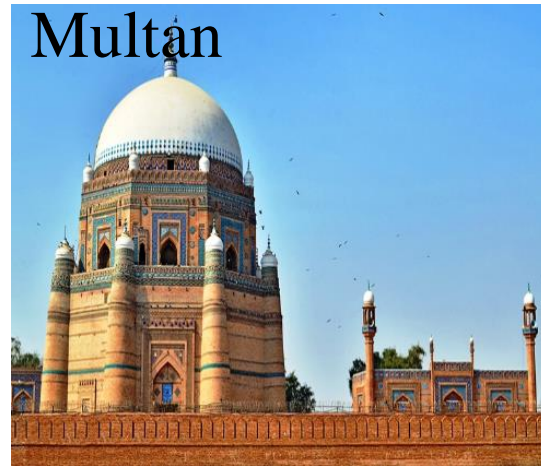
Lahore



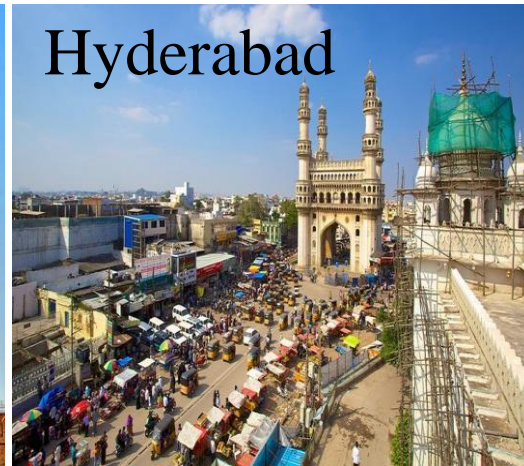
Rawalpindi



Multan



Hyderabad



# Round Table 2019

## Suicide prevention

### Pakistan National Suicide Prevention strategy

### Royal College of Psychiatry





# Awareness Raising Activities





# Mental Health Question Time



**10<sup>th</sup> March 2020**



at  
**Pakistan National Council of the Arts**





# **ALL PARLIAMENTARY MENTAL HEALTH SUMMIT**

**12<sup>th</sup> March 2020**

*The Journey Towards Achieving sustainable Development Goals*





## “The 12 who survive”

# ROSHNI

PaRticipatory interventiOn to reduce maternal  
depreSsion and under five cHild morbidity  
- *A cluster-raNdomized controlled trIal*

MANCHESTER  
1824

The University of Manchester

- Pakistan is considered the riskiest place to be born because of high newborn mortality rate. For every 1,000 babies born in Pakistan in 2016, 46 died before the end of their first month (UNICEF 2018).
- Infant Mortality Rate (IMR) – 64 deaths/1,000 live births (UNICEF 2018)
- Under Five Mortality Rate (U5MR) – 79 deaths/1,000 live births (UNICEF 2018)

But those who survive need care –

- 37% of children in Pakistan are stunted, and 17% are severely stunted (2017-18 Pakistan Demographic and Health Survey - PDHS)
- 23% of all children under 5 are underweight, and 8% are severely underweight (2017-18 Pakistan Demographic and Health Survey - PDHS).

# Maternal Health & Wellbeing

Maternal Mortality rate : 320 per 100,000

- Depression is **2 times higher in women vs. men**
  - Depression in mothers is associated with
    - low birth weight
    - immature births
    - malnutrition
    - stunting
    - behavioral problems in children
    - Less likely to receive antenatal care
    - less stimulation to the children
    - Child hood depression
    - Higher risk of depression in life with poor prognosis

1- Pakistan Demographic and Health survey 2012-2013,

2- Howard, L. M., et al. (2014). Non-psychotic mental disorders in the perinatal period. *The Lancet*, 384(9956), 1775-1788.

## Detecting Maternal Depression in a Low-Income Country: Comparison of the Self-Reporting Questionnaire and the Edinburgh Postnatal Depression Scale

by Nusrat Husain,<sup>1,2</sup> Tayyeba Kiran,<sup>3</sup> Altaf Sumra,<sup>2</sup> Shehla Naeem Zafar,<sup>4</sup> Raza Ur Rahman,<sup>4</sup> Farhat Jafri,<sup>3</sup> Sami Ansari,<sup>3</sup> Meher Husain,<sup>2</sup> Moruf Lanrewaju Adelekan,<sup>2</sup> and Imran Bashir Chaudhry<sup>1,2</sup>

[Archives of Women's Mental Health](#)

July 2006, Volume 9, [Issue 4](#), pp 197-202 | [Cite as](#)

## Prevalence and social correlates of postnatal depression in a low income country

Authors

[Authors and affiliations](#)

N. Husain, I. Bevc, M. Husain, I. B. Chaudhry, N. Atif, A. Rahman

# A Call to Action

- “One in 13 children die, but the 12 who survive also need care”.  
Meyers R. (1992).

1) How do we cope with the existing burden?

2) How do we decrease future burden of Maternal & Childhood disorders?

3) How can one incorporate care for mothers & Children within existing health care systems?

The answers have to be worked out in the context that most LMIC countries have less than US \$20 per capita for the health care.

# Treatment of Maternal Depression in Urban Slums of Karachi Pakistan

Asian Journal of Psychiatry 29 (2017) 63-70

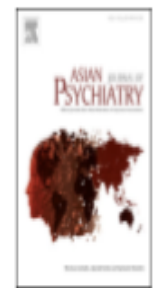


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journal homepage: [www.elsevier.com/locate/ajp](http://www.elsevier.com/locate/ajp)

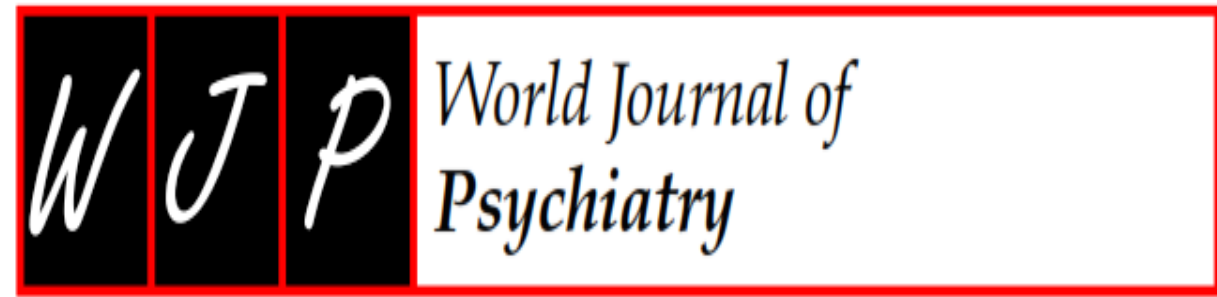


Asian pearls

Treatment of maternal depression in urban slums of Karachi, Pakistan:  
A randomized controlled trial (RCT) of an integrated maternal  
psychological and early child development intervention



Nusrat Husain<sup>a,b,g,\*</sup>, Farah Zulqernain<sup>b</sup>, Lesley-Anne Carter<sup>c</sup>, Imran B. Chaudhry<sup>a,b</sup>,  
Batoool Fatima<sup>b</sup>, Tayyeba Kiran<sup>b</sup>, Nasim Chaudhry<sup>b,d</sup>, Shehla Naeem<sup>b,e</sup>, Farhat Jafri<sup>b,f</sup>,  
Farah Lunat<sup>b,g</sup>, Sami Ul Haq<sup>b</sup>, Meher Husain<sup>b</sup>, Chris Roberts<sup>c</sup>, Farooq Naeem<sup>h</sup>,  
Atif Rahman<sup>i</sup>



Submit a Manuscript: <http://www.f6publishing.com>

World J Psychiatr 2017 June 22; 7(2): 98-105

DOI: 10.5498/wjp.v7.i2.98

ISSN 2220-3206 (online)



Randomized Controlled Trial

## Group psychological intervention for maternal depression: A nested qualitative study from Karachi, Pakistan

Nusrat Husain, Nasim Chaudhry, Christine Furber, Hina Fayyaz, Tayyeba Kiran, Farah Lunat, Raza Ur Rahman,  
Saira Farhan, Batoool Fatima

+

LTP

+

Learning Through Play (LTP)

+

Group CBT (THP+ JM-adapted for group)

## Intervention

### LTP

LTP is intended to stimulate early child development. The central feature of the programme is a pictorial calendar devised for parents, depicting eight successive stages of child development from birth to 3 years. In each stage, five key areas of child development are depicted: sense of self, physical, relationships, understanding, and communication.

### THP

THP adopts 'here and now' problem-solving approach. It uses cognitive behaviour therapy techniques of active listening, changing negative thinking, collaboration with the family, and guided discovery.

### Jeane Miranda's manual CBT for depression

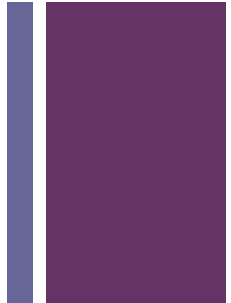
Manual for group CBT that works on three key areas; relationship between thoughts and mood, activities and mood, and interpersonal activities and mood.







# Challenges



Political violence continues on fourth day

## Nine more shot dead across city

By Staff Reporter

Violence in Karachi continued on Tuesday as rioters set up road blockades and lit bonfires, suspending vehicular traffic on one of the city's busiest roads, linking the rest of the country with Karachi.

The crisis began when the authorities in Sindh Province declared Sindhi the only official language and the Urdu-speaking community reacted violently.

As armed police patrolled this city of four million people sporadic gunfire was heard.

Police smashed down makeshift barricades and mock graves set up by the rioters marked with the names of Mr Mir Rasul Bakhas Talpur, the provincial governor, and Mr Ali Bhutto, the Chief Minister. Angry Urdu speakers, who make up the majority of Karachi's population, stopped passers-by and made them dance on the fake graves to show disapproval of the language Bill.

—Reuter and Agence France Presse.



## Gunfire in Karachi despite curfew

Karachi, July 11.—A curfew was clamped on Karachi today and authorities gave a warning that anyone breaking it would be shot on sight. Police injured one person when they fired on a crowd violating the curfew in a suburb.

Violence between rival Urdu and Sindhi speaking mobs in Sindh Province entered its fifth day. So far 20 people have been reported killed.

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—Reuter and Agence France Presse.



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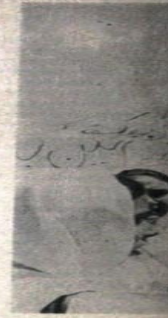
## 25 vehicles burnt

# Fatal mishap sparks off rampage in city

By Our Staff Reporter

KARACHI, April 15: Large areas in city's District West went into turmoil on Monday in a day-long spree

The protesters put up road barricades and lit bonfires, suspending vehicular traffic on two of the city's busiest roads, linking the rest of the country with Karachi.



OUTRAGE

## 5th dengue-related death in Karachi

By Our Staff Reporter

KARACHI: The city health authorities confirmed on Tuesday that a young man had become the fifth victim of the mosquito-borne dengue haemorrhagic fever, who died in a city hospital.

Officials said a 32-year-old man, resident of Surjani Town, was admitted to the Civil Hospital Karachi (CHK) three days back where he died on Tuesday morning.

"He was admitted to the CHK in a precarious condition where he succumbed to the disease in the morning today," said Dr Masood Solangi, head of the provincial dengue control and prevention programme, while speaking to Dawn.

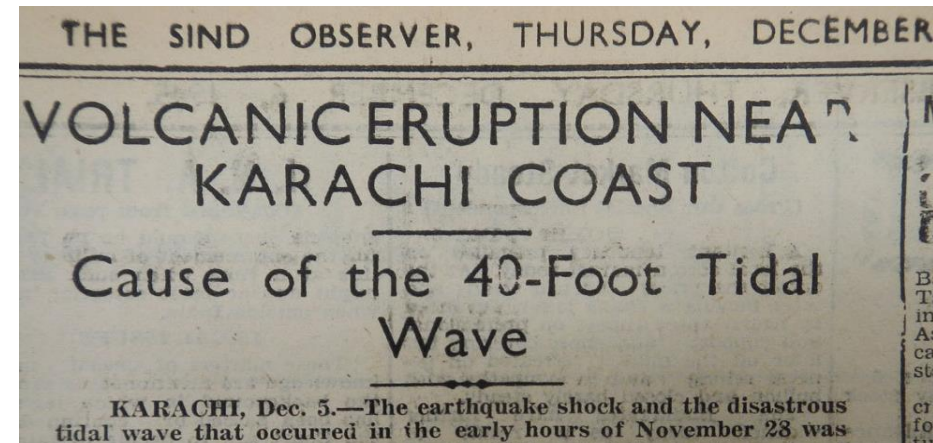
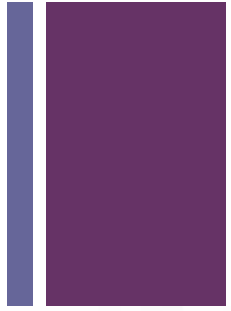
He said five persons had died of dengue in Sindh this year — all residents of Karachi.

More than 2,200 victims of dengue fever have been reported in Sindh, a majority of them belonging to Karachi, officials said.

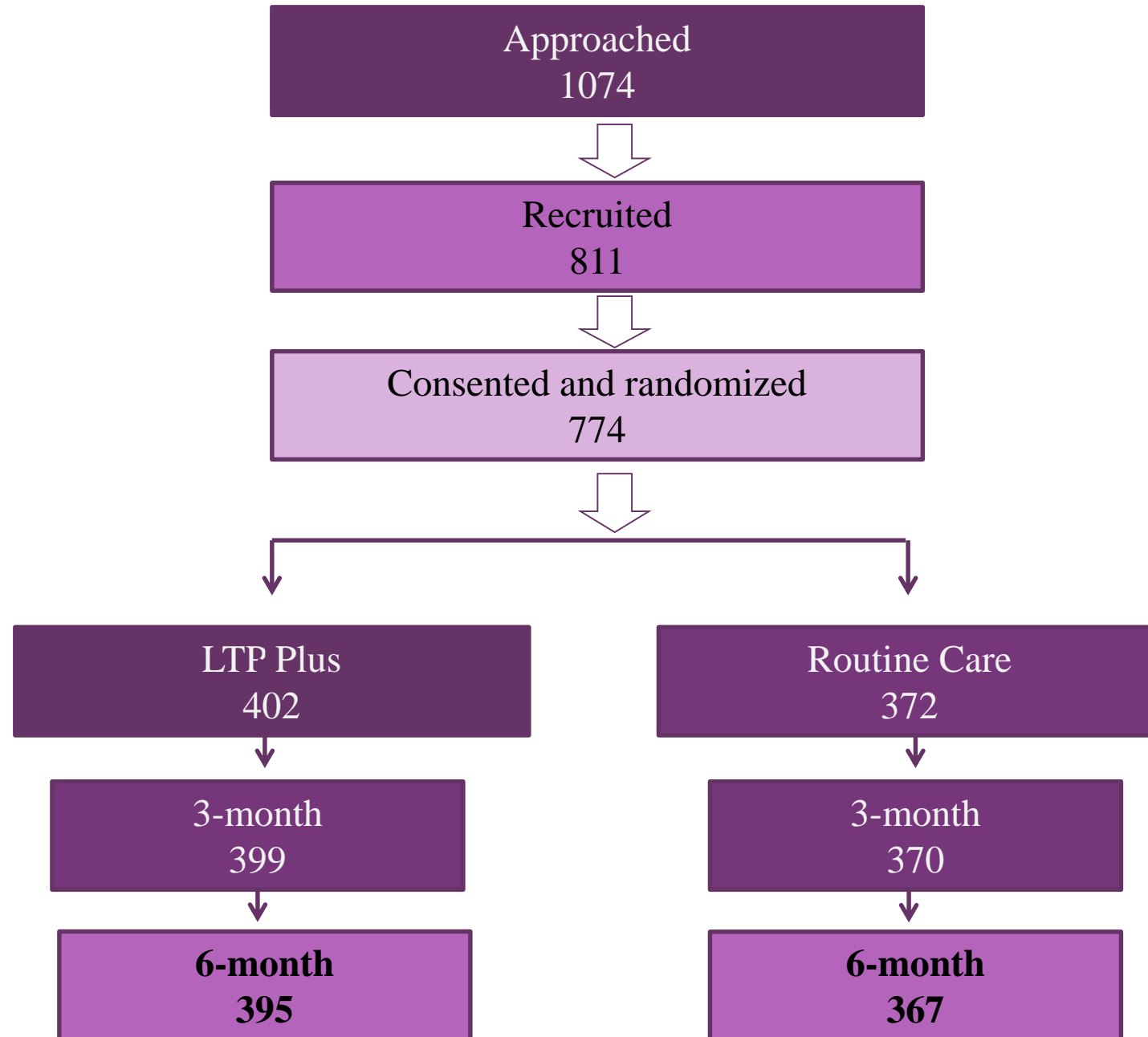
Last year, at least 1,295 cases of dengue fever were reported from Sindh, of which 1,277 victims belonged to



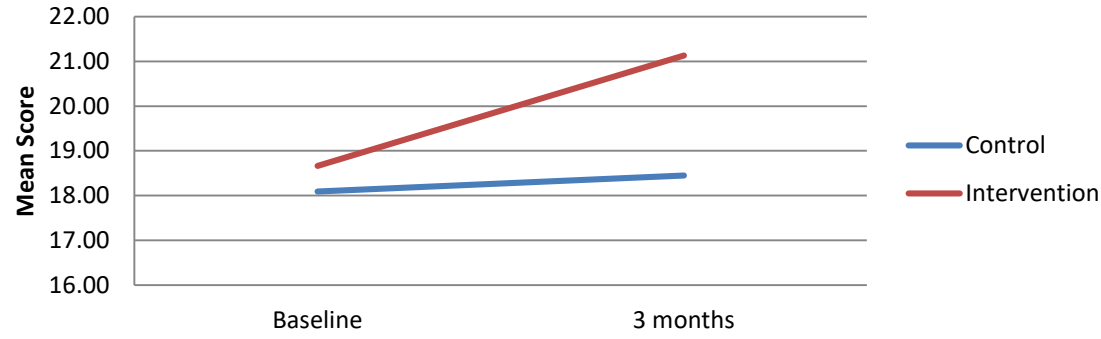
# Extreme Weather Conditions



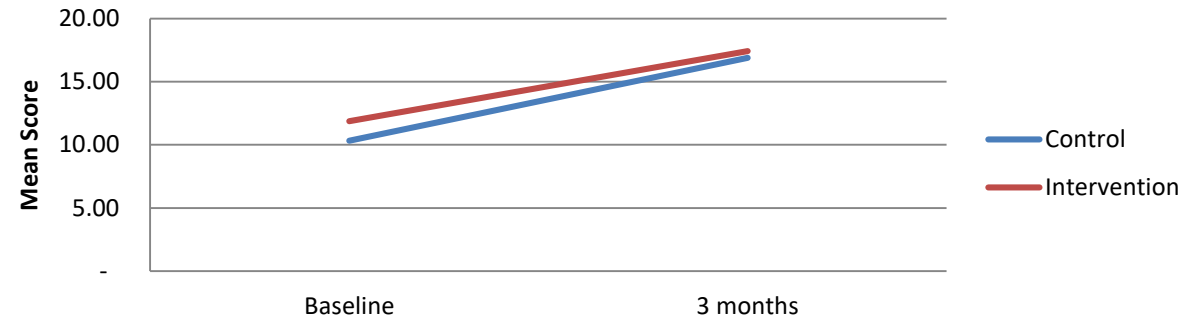
+ Consort



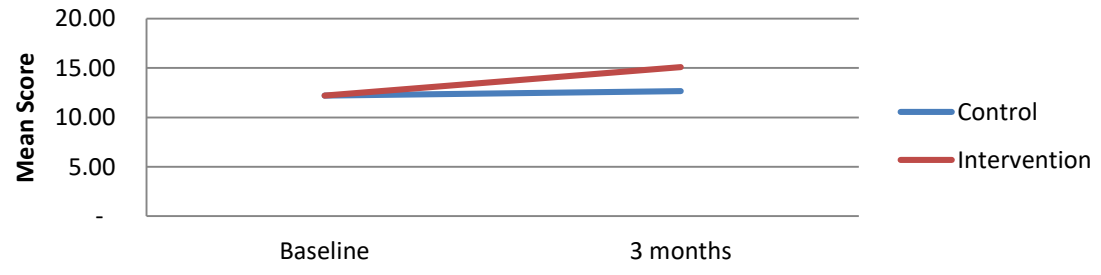
**KAP: 0 to 06 months**



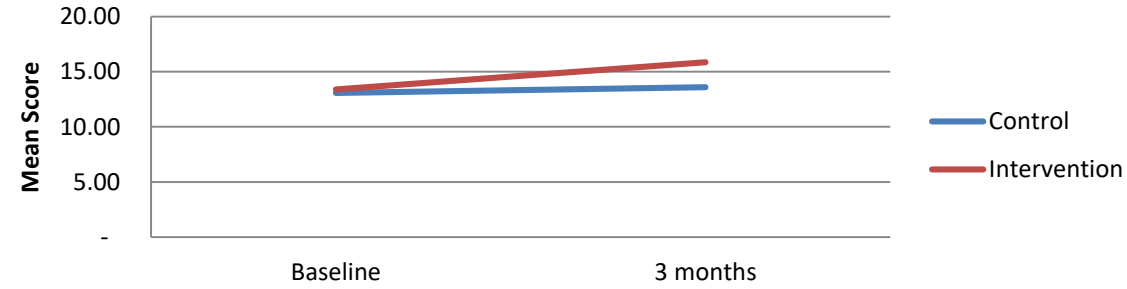
**KAP: 06 to 09 months**



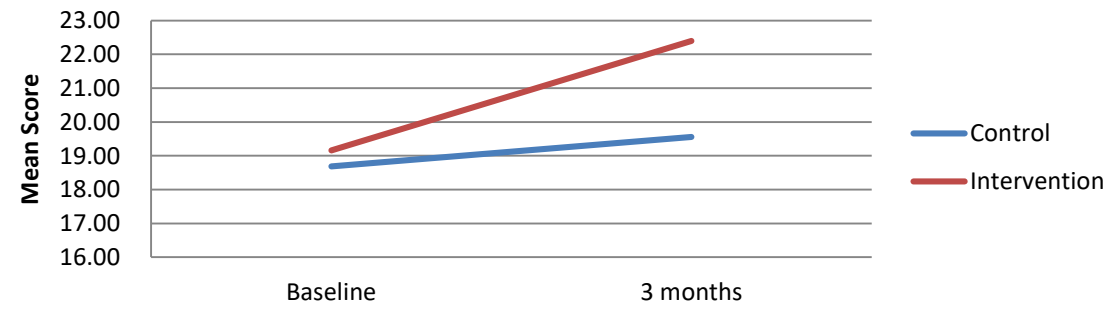
**KAP: 9 to 18 months**



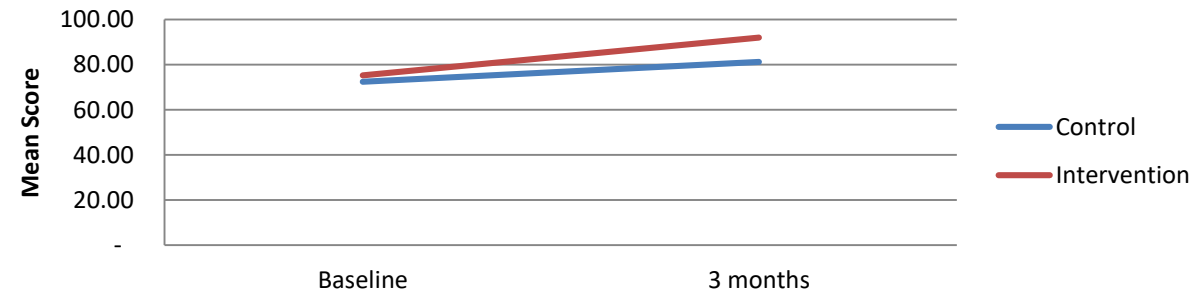
**KAP: 18 to 24 months**

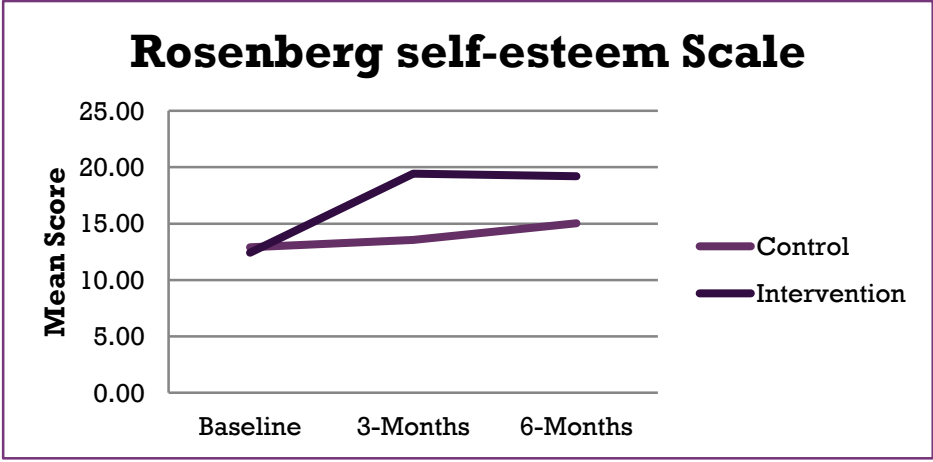
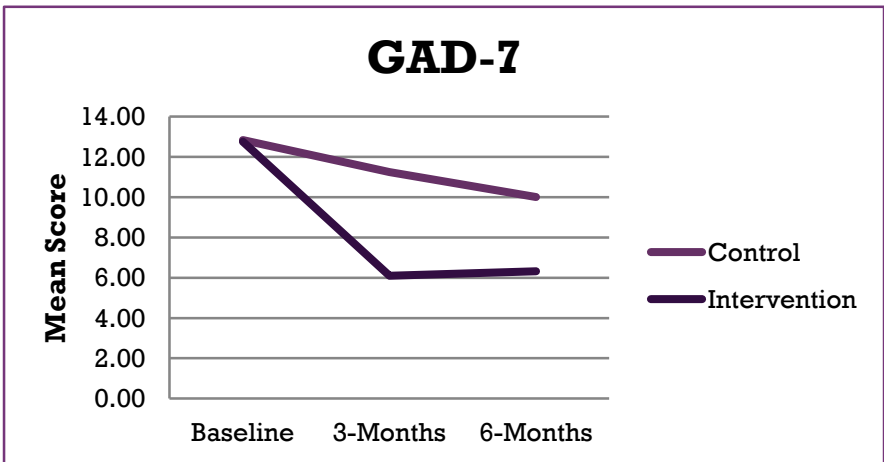
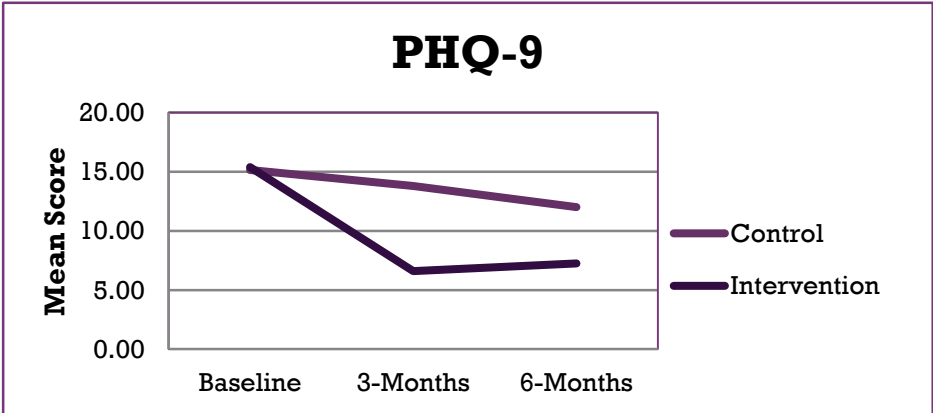
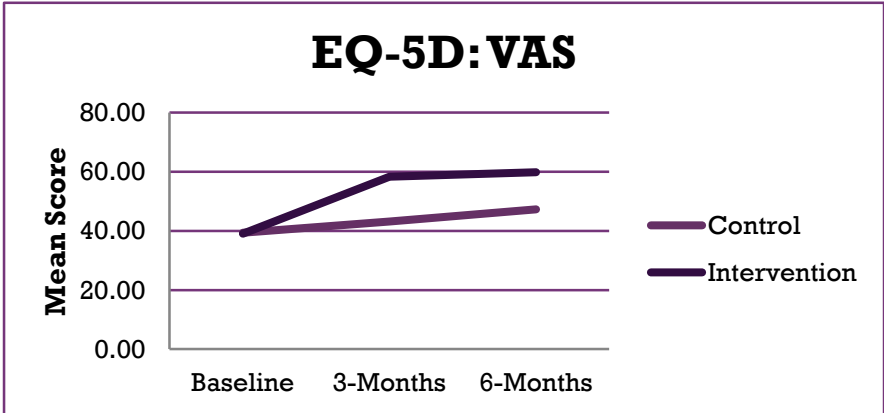
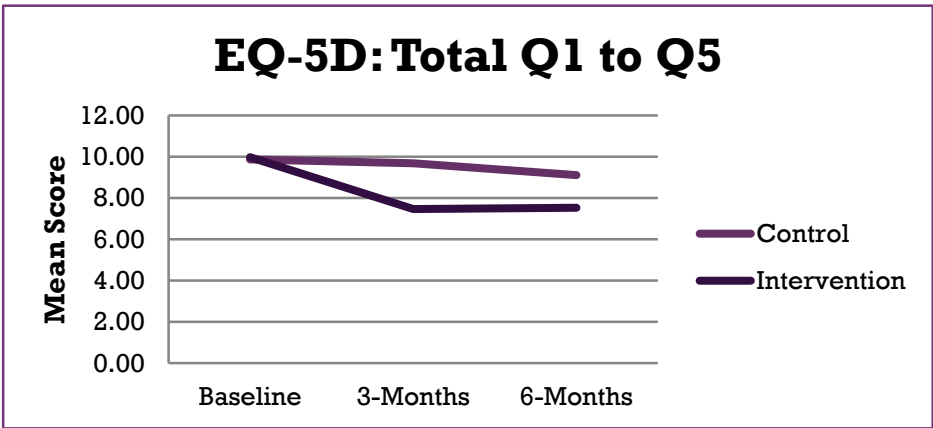
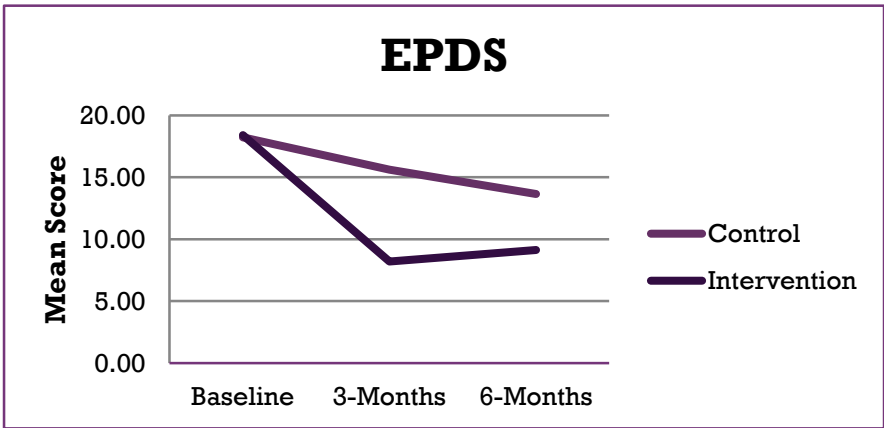


**KAP: From 24 to 36 months**



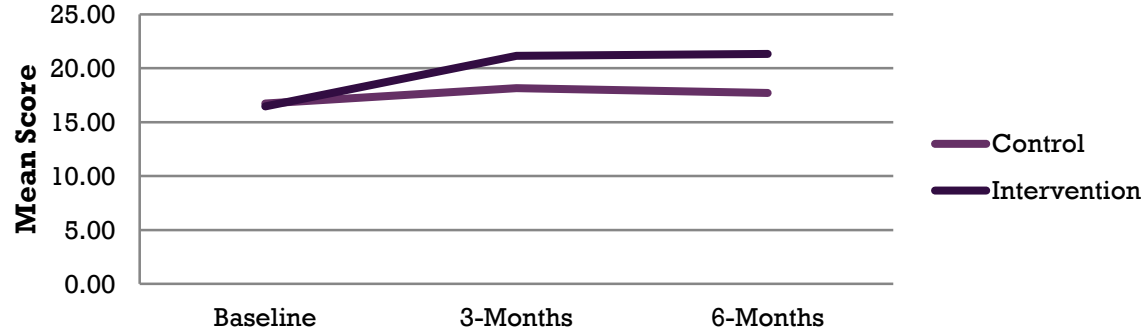
**KAP: Total**



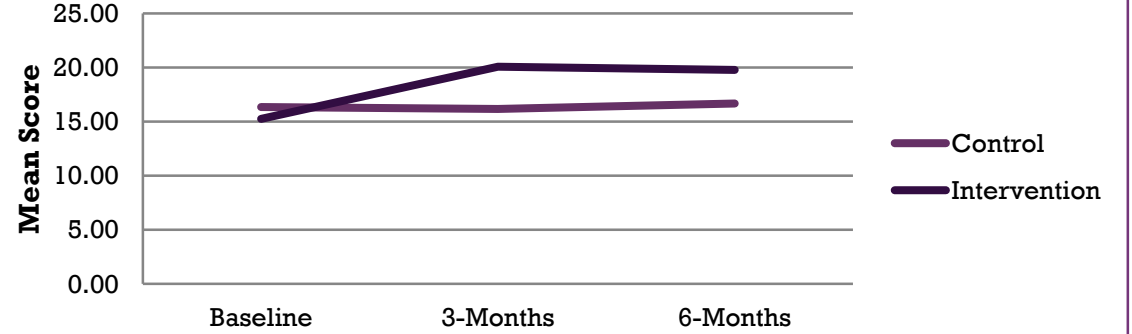




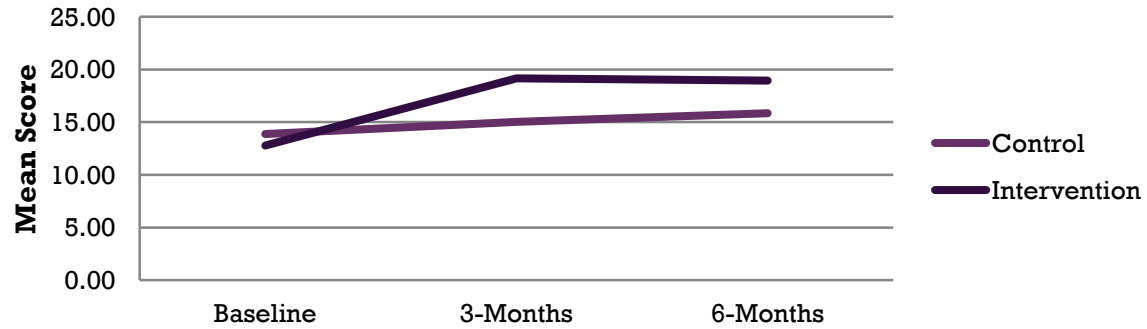
### MSPSS (Significant Others)



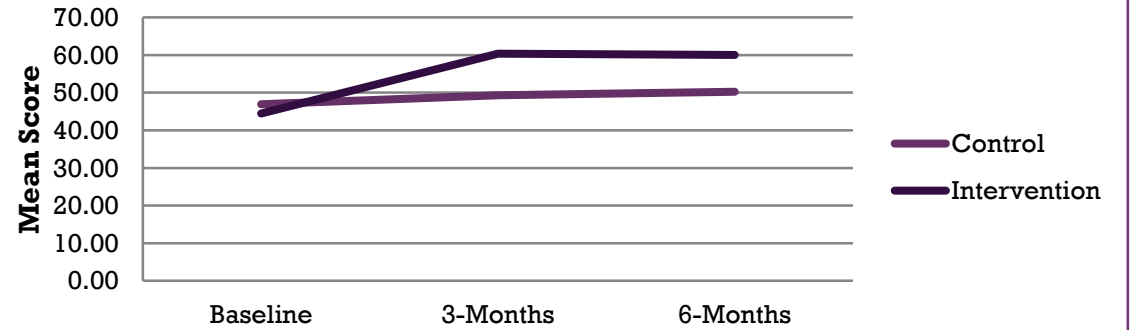
### MSPSS (FAMILY)



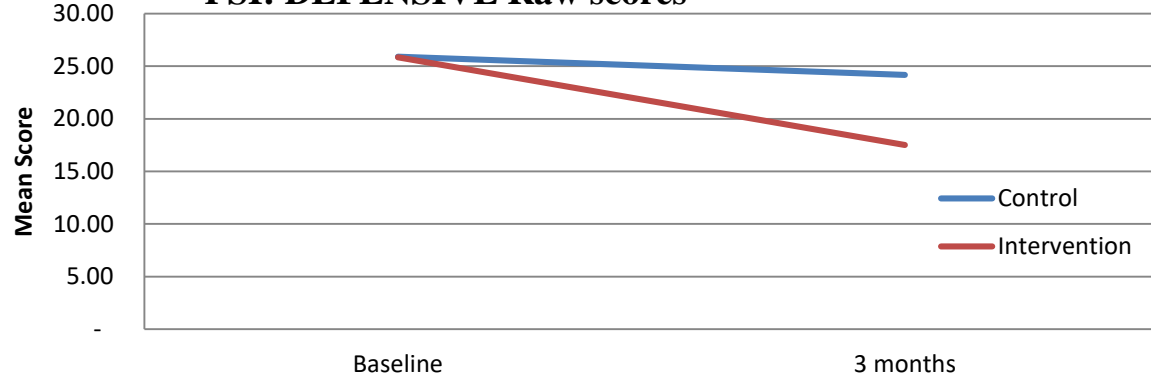
### MSPSS (FRIENDS)



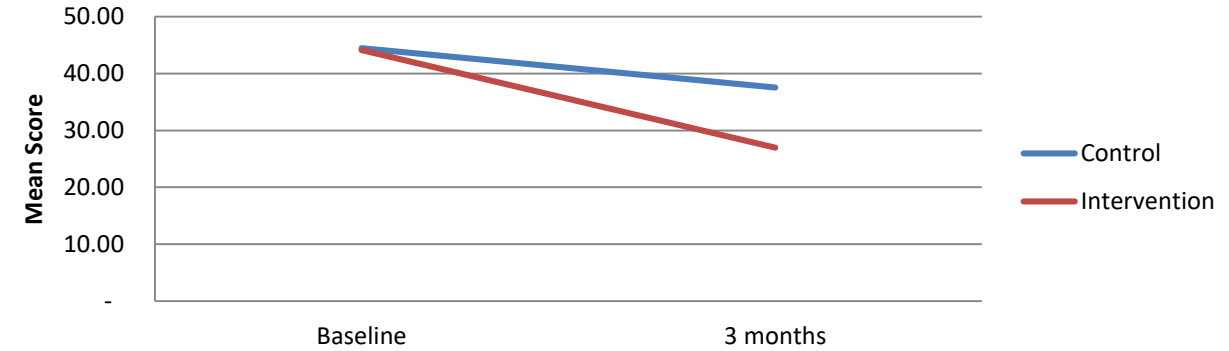
### MSPSS TOTAL



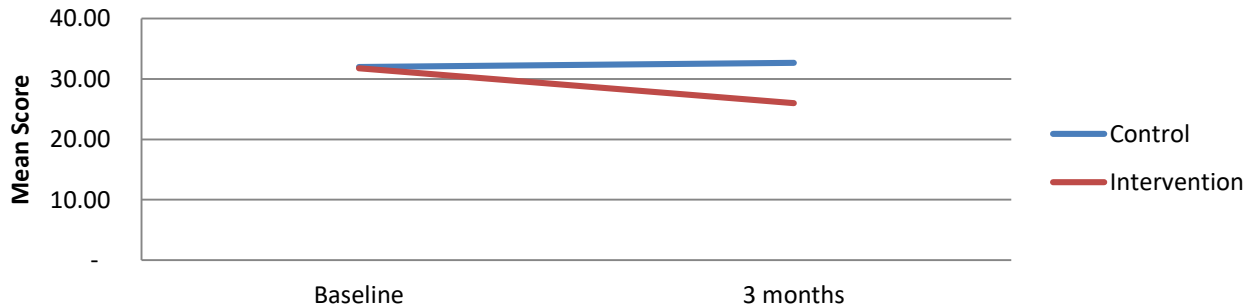
**PSI: DEFENSIVE Raw scores**



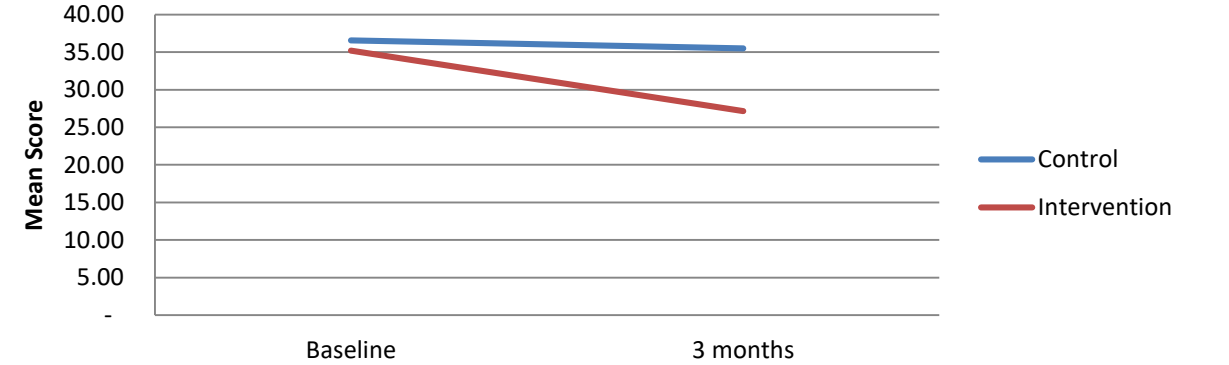
**PSI: PARENENTAL DISTRESS (PD)**



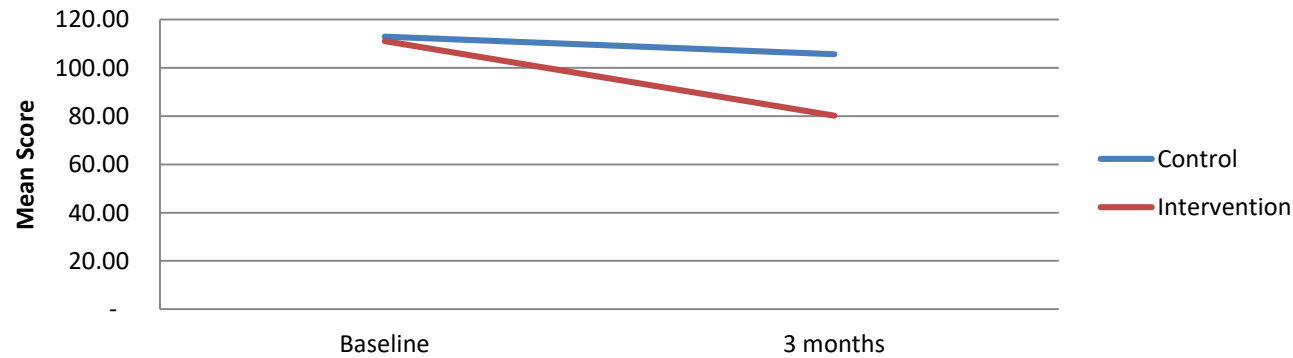
**PSI: PARENT-CHILD DYSFUNCTIONAL INTERACTION (P-CDI)**



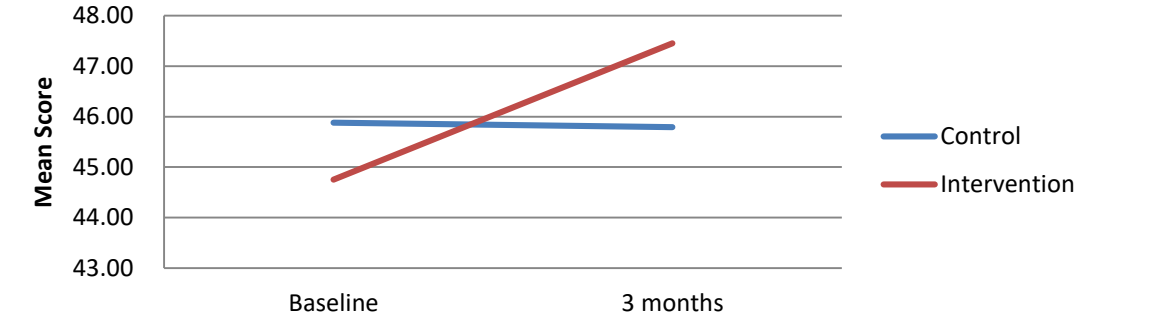
**PSI: DIFFICULT CHILD (DC)**



**PSI: TOTAL STRESS SCORE**



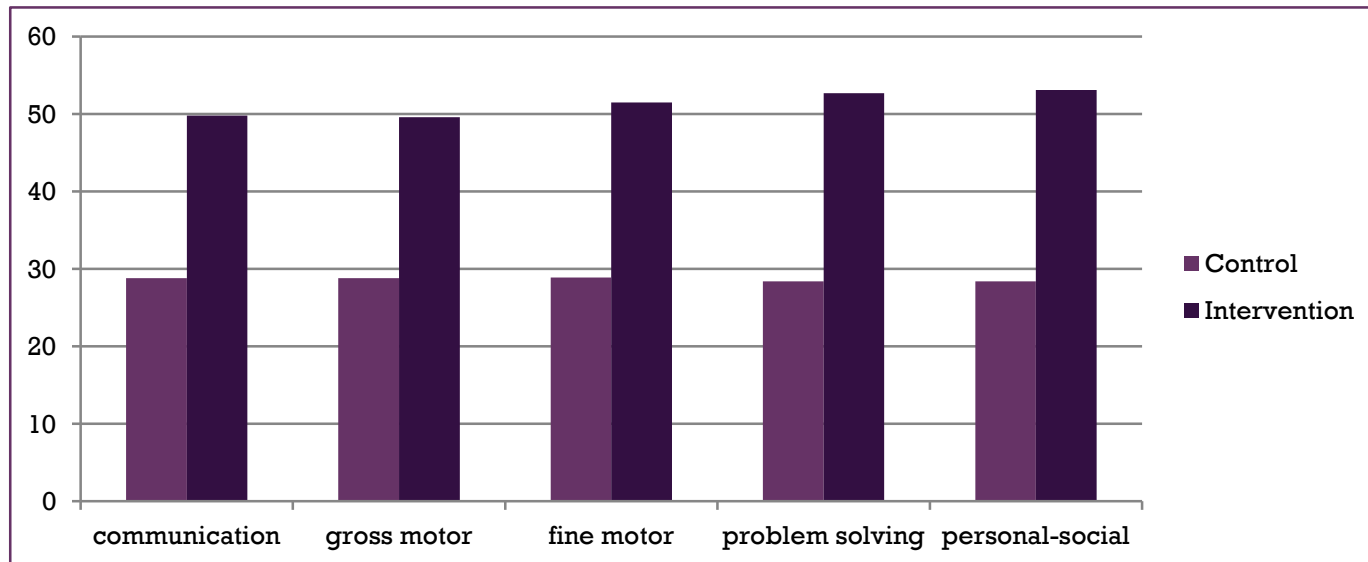
**PARENTING CONFIDENCE SCORE**



# Ages and Stages Questionnaire -3 comparison at 6 months



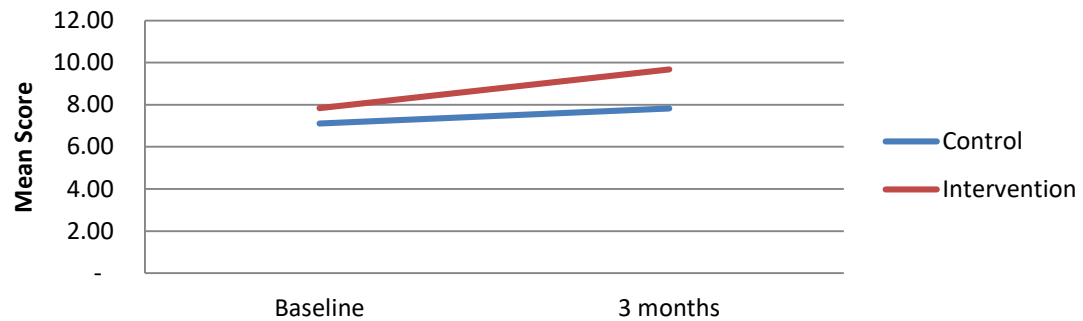
Variable	Control Mean (SD)	Intervention Mean (SD)	Difference (*) Mean (95% CI)	P-value
ASQ communication	28.8 (10.7)	49.8 (10.1)	20.7 (18.7, 22.8)	<0.001
ASQ gross motor	28.8 (10.3)	49.6 (10.3)	20.4 (18.4, 22.3)	<0.001
ASQ fine motor	28.9 (10.0)	51.5 (10.7)	21.8 (19.5, 24.2)	<0.001
ASQ problem solving	28.4 (9.8)	52.7 (10.1)	23.8 (21.5, 26.0)	<0.001
ASQ personal-social	28.4 (9.9)	53.1 (10.3)	24.0 (21.8, 26.3)	<0.001
Ages/stages (month)	20.6 (7.7)	21.1 (8.2)	-0.1 (-0.2, 0.1)	0.50



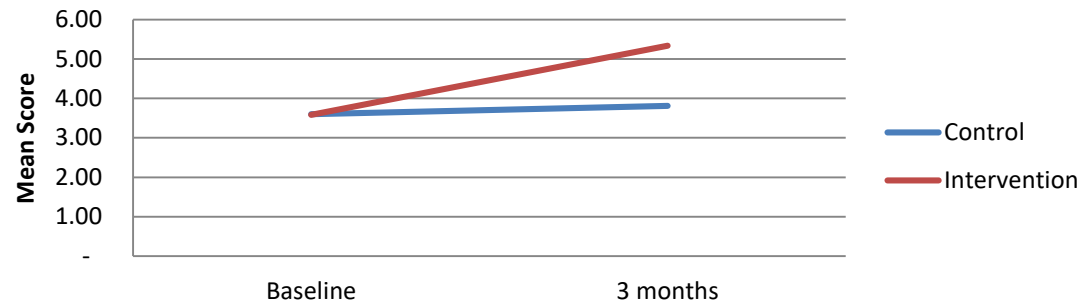
**ASQ-3** screens and assesses the developmental performance of children in the areas of communication, gross motor skills, fine motor skills, problem solving, and personal-social skills



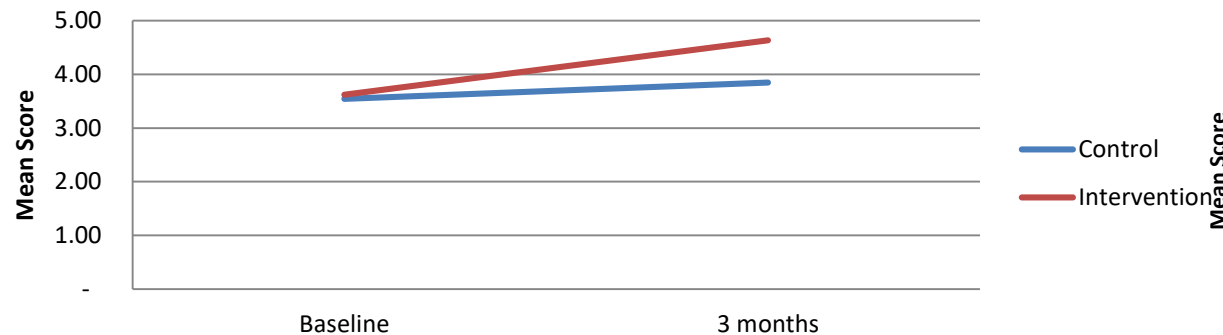
### HOME: RESPONSIVITY



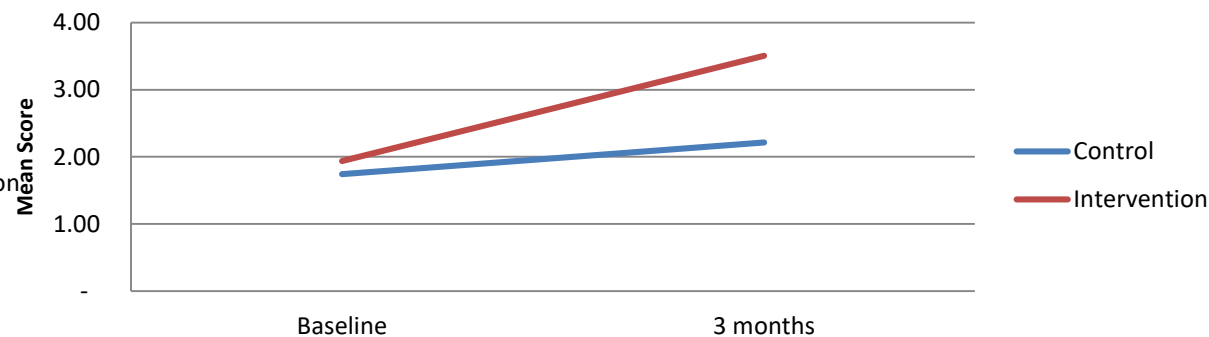
### HOME: ACCEPTANCE)



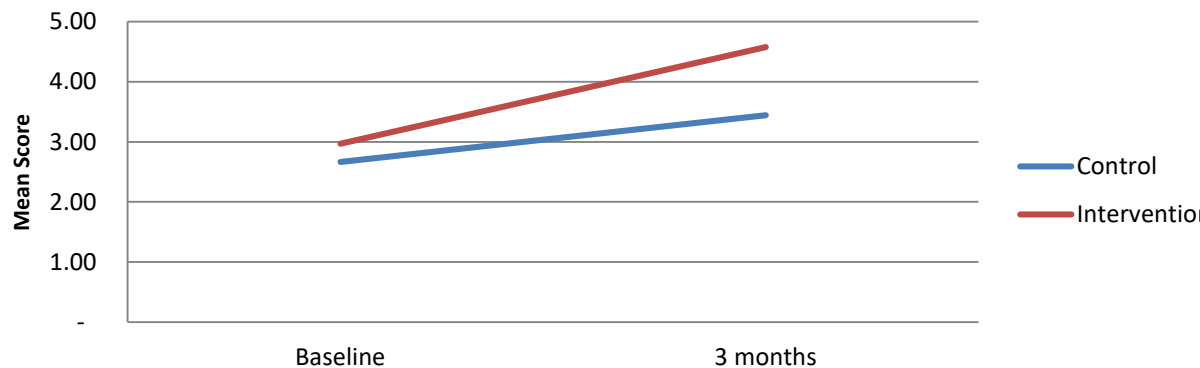
### HOME: ORGANIZATION)



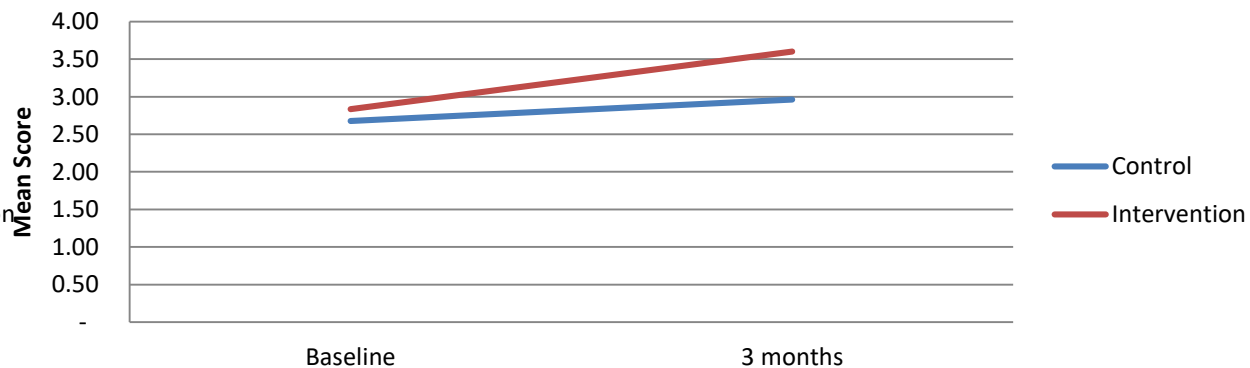
### HOME: LEARNING MATERIALS



### HOME: P - INVOLVMENT



### HOME: VARIETY



# Comments of Mothers

“I liked the part related to children because I feel happy when my child is happy”

“This is the first time someone is asking about me, about my health so thoroughly”

“Now I have become more confident”

“ We shall keep on looking for other solutions”

“there is a change in playing and eating habits of my child...before we were not doing this”





“I had disputes with my husband”



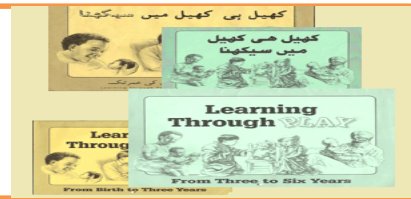
“Before (intervention) I felt sad, anxious and alone”



“When I was angry, I often used to beat my children”



**For them, intervention was like a vase full of Roses with aura of knowledge/nurturance / confidence/transformation**



“My mind has changed now I try to solve my problem myself”



“I learned ways of rearing children. Now I take care of their health”



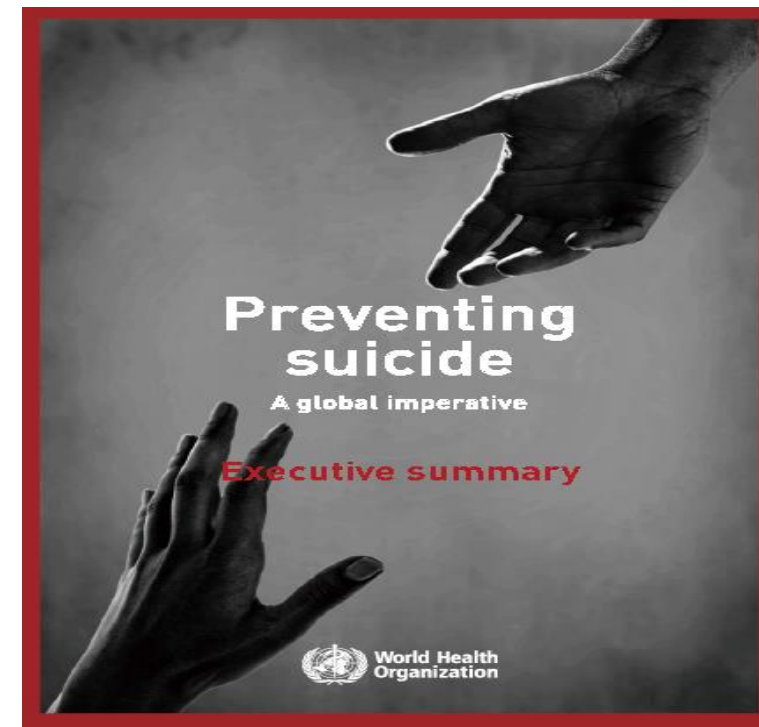
“Holding children do not spoil them, rather it gives them maturity”

# Suicidal Ideation

	Control		LTP Plus		Pearson Chi-Square	Exact Sig. (2-sided)
	N	%	N	%		
<b>SUICDAL IDEATION / THOUGHTS (EPDS)</b>						
Baseline	104	28.34	117	28.75	0.016	0.937
3 months	105	28.77	34	8.42	53.633	0.000
<b>SUICDAL IDEATION / THOUGHTS (PHQ-9)</b>						
Baseline	93	25.34	100	24.57	0.061	0.868
3 months	114	31.23	31	7.67	69.564	0.000

WHO's Mental Health Gap Action Programme includes suicide as one of the priority conditions and the recent WHO report "*Preventing suicide: a global imperative*" calls for suicide prevention to be a high priority on the global public health agenda.

**“prioritizing preventive interventions among vulnerable populations”**



# Maternal Health, Parenting and Child development ROSHNI-2

+  
**ROSHNI**  
Participatory  
intervention to reduce  
maternal depression and  
under five child morbidity  
– A cluster-randomized  
controlled trial



باپ کی موجودگی کس قدر فرق ڈال سکتی ہے

باپ ہونا

ایک غیر معمولی اور بے لطف تجربہ ہے

پیدائش سے چھ سال کی عمر تک کے بچوں کے باپوں

کیلئے انتظامی مہارت کا پروگرام



Grand Challenges Canada™  
Grands Défis Canada™  
BOLD IDEAS FOR HUMANITY™



The  
Hincks-  
Bellcrest  
Centre.

## ROSHNI2 – Multi-Centre RCT of a Group Psychological Intervention for Postnatal Depression in British South Asians

Funding of £1.7 million awarded by NIHR HTA programme

This multi-centre trial will be conducted:

- To compare Treatment as Usual plus Positive Health Programme versus Treatment as Usual for British South Asian (BSA) women with postnatal depression.
- To determine the clinical & cost-effectiveness.

# ROSHNI-2



TECH  
MOTHER CARE



## Sustainable Development Goals

**Goal 2: End Hunger, improve food security and improved nutrition :** LTP Plus intervention not only improves mothers responsiveness and their interaction with the child but during but one of the sessions also focuses on appropriate nutrition.

**Goal 3: Ensure healthy lives and promote well being for all at all stages:** LTP Plus intervention contributes to promoting health of not only mothers and children but it can contribute to promote the well being of the the whole family.

**Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all:** LTP Plus is a training program that not only helps to improve mothers knowledge about child development but they also develop skills such as problem solving.

**Goal 5: Achieve gender equality and empower all women and girls :** The LTP intervention has shown a positive impact on mothers' self esteem. There is also a significant improvement in parenting confidence and mothers were confident in taking decisions for their children . There was also improvement in mothers quality of life.

# + Acknowledgements

- All The Participants.
- The Global Mental Health and Cultural Psychiatry Research Group.
- Funded by UK Medical Research Council/Wellcome Trust/DFID/NIHR.
- Pakistan Institute of Living and Learning (PILL)
- British Council (IHLFS)
- Grand Challenges Canada (GCC)
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