

# Psychological and Psychiatric diagnosis & care of survivors with ALF +/- with liver transplantation

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# A case in point

- A 33 year old divorced mother of 2 kids aged 6 and 4 transferred to us from another province in Dec with ALF 2 to psych meds, alcohol and paracetamol OD & bariatric surgery. One month in ICU, part of it lying prone in ICU and eventual recovery. Poor social circumstances, (family visited once or twice in this period) background psychiatric illness and substance abuse. Worked incredibly hard on her and set up psychosocial stop gaps. Back 8 weeks later with non compliance to meds, ethanol level of 0.35 (cough syrup and other) and Amino transferases in the 8000's with an INR of 4.6. Again all within team, worked really hard for her to eventually die alone, far from any family.

# Psychiatric and Psychosocial outcome

- As transplant surgery has dramatically advanced the success of it is no longer judged solely by its effect on morbidity and mortality but by its influence on transplants recipients psychosocial well being” (Freeman 1995)
- HRQOL - Liver transplantation is associated with improvement in HRQOL relative to pre transplant BUT without restoring the health status levels described in the general population (Dew et al 1997)
- So do we prescribe fully or enough to psychosocial rehab in Gauteng?
- What psychiatric or psychological problems impair HRQOL post transplant?
  - Delirium, adjustment disorder, MDD, Anxiety, PTSD, cognitive impairment



## Post-Traumatic Stress Disorders, Mood Disorders, and Quality of Life in Transplant Recipients With Acute Liver Failure

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### ABSTRACT

**Objective.** The objective of this study was to assess post-traumatic stress disorder (PTSD), depression, anxiety, and quality of life among acute hepatitis patients undergoing liver transplantation.

**Method.** Twenty-four patients underwent transplantation due to acute liver failure. After a brief anamnestic interview to gather demographic and clinical information, each participant underwent a psychological assessment using the SF-36 Health Survey (SF-36), Impact of Events Scale–Revised (IES-R), Hospital Anxiety and Depression (HAD) Scale, as well as Beck Depression Inventory (BDI).

**Results.** The average age of the patients was 41.17 years ( $\pm 17.03$ ); the mean time after transplantation was  $13.50 \pm 13.80$  months; 83% of the subjects were women. Anxiety symptoms were observed in 33.2% of the participants and depression in 16.7% by HAD and 45.8% by BDI. By IES-R 46.2% of patients presented high to severe levels of stress. The majority of participants (54.2%) showed good quality of life scores. A correlation analysis indicated a significant negative association between SF-36 score and other scales (from  $-0.514$  to  $-0.681$ ). Upon a comparative analysis, a significant difference between groups was only noted in SF-36 score ( $P = .032$ ).

**Conclusion.** The results led us to conclude that anxiety, depression, and PTSD were negatively associated with quality of life in this population. These symptoms also contributed directly to determine well-being among these patients.

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## Psychiatric and Psychosocial Outcome of Orthotopic Liver Transplantation

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**Table 3.** Test-psychological correlates of adult OLT recipients according to the diagnostic status of PTSD at the time of psychiatric assessment

Category	Total sample (n = 75)	No PTSD (I) (n = 58)	Partial PTSD (II) (n = 13)	Full PTSD (III) (n = 4)	p	I+III	I+II	II+III
SKT	2.0 (0.0–14.0)	1.0 (0.0–8.0)	3.0 (1.0–14.0)	5.5 (4.0–8.0)	++	*	*	–
HAM-D <sub>17</sub>	4.0 (0.0–31.0)	2.0 (0.0–9.0)	7.0 (3.0–30.0)	22.0 (11.0–31.0)	+++	*	*	*
PTSS-10	18.0 (10.0–52.0)	16.0 (10.0–24.0)	29.0 (25.0–33.0)	47.0 (36.0–52.0)	+++	*	*	*
SSS	69.0 (14.0–76.0)	71.0 (14.0–76.0)	63.0 (28.0–76.0)	33.5 (14.0–62.0)	++	*	–	*

Values are median; scores in parentheses indicate minimum and maximum. +++ p < 0.001; ++ p < 0.01; + p < 0.05 according to Kruskal-Wallis one-way analysis of variance or ranks. I, II, III: pair-wise multiple comparison procedures (Bonferroni). Statistically significant: \* p < 0.05.

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**Table 2.** Treatment characteristics of adult OLT recipients according to the diagnostic status of PTSD at the time of psychiatric assessment

Category	Total sample (n = 75)	No PTSD (I) (n = 58)	Partial PTSD (II) (n = 13)	Full PTSD (III) (n = 4)	p	I+III	I+II	II+III
Time interval								
Median, months	46	45	63	42.5	0.267 <sup>1</sup>			
SD	27.9	28.6	27.0	13.9				
Range, months	5–129	5–129	25–120	32–65				
Waiting period								
Median, days	22	28	11	8.5	0.027 <sup>1</sup>	–	–	–
SD	38.1	41.0	21.1	4.1				
Range, days	1–205	1–205	1–76	1–10				
ICU days								
Median, days	10	9	14	13	0.011 <sup>1</sup>	–	*	–
SD	17.6	14.4	25.4	13.2				
Range, days	4–90	4–65	9–90	7–36				
Number of complications during ICU								
Median	3	3	4	3	0.039 <sup>1</sup>	–	*	–
SD	2.0	1.9	1.9	2.6				
Range	0–8	0–6	1–8	0–5				



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# The Relevance of Anxiety, Depression, and Coping in Patients After Liver Transplantation

*Ralf Nickel,\* Andreas Wunsch,<sup>†</sup> Ulrich T. Egle,\* Ansgar W. Lohse,<sup>#</sup> and Gerd Otto<sup>†</sup>*

- Psychosocial factors far more relevant than purely somatic factors
- A greater time elapsed since transplantation in patients with increased HADS scores for anxiety and depression
- Depressive coping, Avoidant coping contributed considerably to determine poor course of treatment post LT
- Those LT pts with depression and anxiety show poorer physical and mental health QOL after TX

# QOL impaired in ALF-SS vs ALF Tx

LIVER TRANSPLANTATION 19:991-1000, 2013

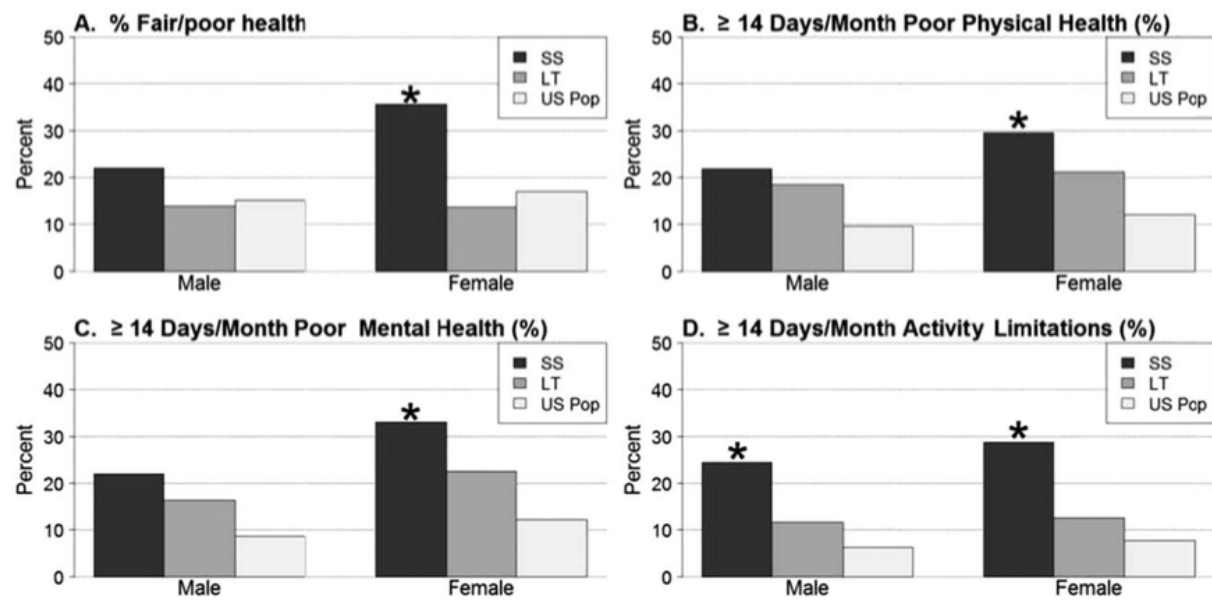
## ORIGINAL ARTICLE

### Quality of Life Is Significantly Impaired in Long-Term Survivors of Acute Liver Failure and Particularly in Acetaminophen-Overdose Patients

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- ALF OD SS reported lower general health scores and more days off due to MH issues, pain, depression, anxiety. On f/u higher rates of psychiatric disease and substance abuse among ALF SS than ALF TX.



- ALF Tx however had lower QOL scores than Gen Pop
- ALF Tx in general have worse MH issues than Tx with cirrhosis





## **Mental Health and Quality of Life in Alcoholic Liver Disease Patients After Liver Transplantation: A Prospective Controlled Study**

D. Telles-Correia, A. Barbosa, I. Mega, E. Monteiro, and E. Barroso

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### **ABSTRACT**

**Objective.** Alcoholic liver disease (ALD) is one of the most important indications for liver transplantation. Discordant conclusions have been found concerning quality of life and mental health after transplantation in this particular group. The aim of this work was to investigate improvements in mental health and quality of life among transplanted patients for ALD.

**Methods.** We studied 45 consecutive transplant candidates with ALD, attending the outpatient clinics. Among these patients we transplanted 24 with the control candidates remaining in wait for transplantation.

**Results.** There was a significant improvement in all mental health and quality of life dimensions among the transplanted ALD group. We also observed a favorable evolution of coping mechanisms (CM) in this group.

**Conclusion.** There is a favorable adjustment of ALD patients after transplantation as shown in CM evolution, which might explain the improved mental health and quality-of-life dimensions.

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# Trajectories of anxiety and depression after liver transplant

- clinical and individual variables assoc with persistent anxiety/depression:
  - experiencing more adverse effects of the immunosuppressive medication, lower level of personal control, more use of emotion focussed coping, less disclosure about transplant, more stressful life events
  - this was associated with worse outcomes regarding medication adherence and HRQOL

Annema et al 2018

# PTSD in organ transplant recipients

- Associated with worse HRQOL and increased health care utilisation
- PTSD is amenable to treatment and can be a modifiable risk factor for adverse outcomes post transplantation.

# PTSD after liver Transplantation

- Emotional and physical responses to acute exposure to traumatic stressors can vary considerably. Most cases spontaneous recovery occurs but if biological and adaptive coping mechanisms are inadequate or stress becomes overwhelming psychological distress can intensify over time and lead to PTSD
- Greater severity of PTSD symptoms related to inadequate coping strategies in pre transplant period, lack of social support, more stressful appraisal of transplant experience and more negatively biased recall of pre transplant psychological distress. (Jin et al 2012)

# PTSD in organ transplant recipients

- PP of clinician ascertained PTSD: 1-16%
- PP of questionnaire assessed substantial PTSD symptoms: 0-46%
- Cumulative incidence of clinician ascertained transplant specific PTSD: 10-17%
- Predictors of post Tx PTSD: Hx of psych illness prior to Tx, poor social support post Tx.
- Post Tx PTSD assoc with worse mental HRQOL and potentially to worse physical HRQOL

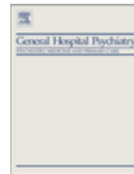
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## Psychiatric–Medical Comorbidity

The Psychiatric–Medical Comorbidity section will focus on the prevalence and impact of psychiatric disorders in patients with chronic medical illness as well as the prevalence and impact of medical disorders in patients with chronic psychiatric illness.

## Posttraumatic stress disorder in organ transplant recipients: a systematic review☆



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# Potential risk factors for PTSD symptoms post transplant

- Demographic factors:
  - younger age, female sex, lower educational level, lower income
- History of pre transplant psychiatric illness, prior exposure to traumatic events, pre transplant benzo use, shorter duration on transplant waiting list,
- Transplant related clinical characteristics:
  - re-transplantation, post operative complications, acute rejection, longer ICU LOS
- Post transplant factors:
  - poor social support, post transplant depressive symptoms, worse cognitive outcomes (Davydow et al 2015)



# Associations of PTSD symptoms and post transplant outcomes

- Post transplant PTSD symptoms associated with worse mental HRQOL, worse social functioning, worse general health, treatment non adherence, ?mortality.
- One study showed that liver transplant patients may be at greater risk of post transplant PTSD compared to heart or lung transplant
  - ? inflammatory cascade, increased systemic inflammation, ? genetic polymorphisms regulating inflammatory cascade

Davydow et al 2015

# Delirium and PTSD

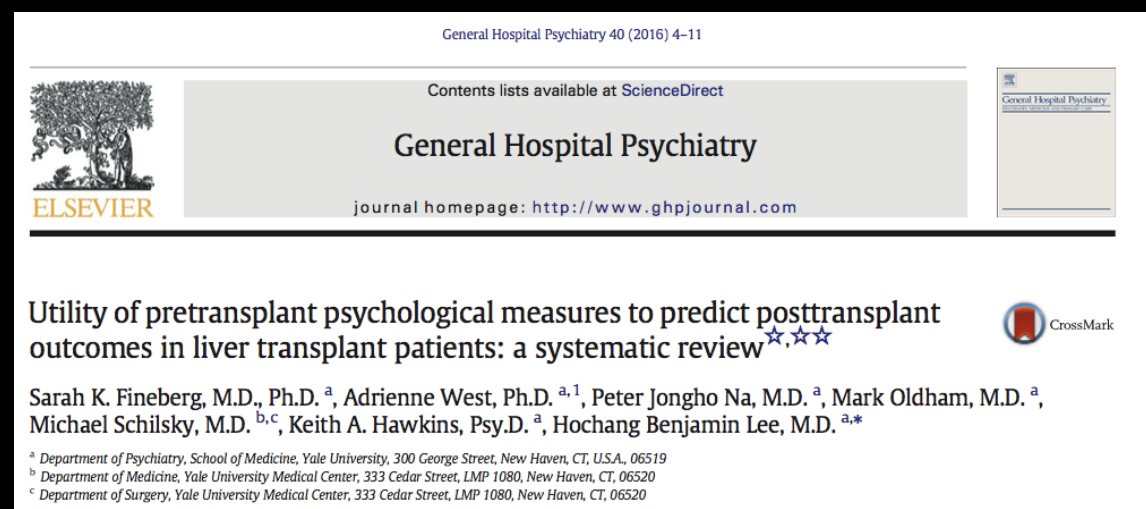
- Intensive care treatment can induce emotional suffering severe enough to be identified as PTSD
- Risk factors: pre icu comorbid psychopathology, past trauma
- Other factors; helplessness and dependency traits, non response of carers, delusions and hallucinations induced by medications, sepsis, physical illness are the cause of the trauma
- The interplay of wounding and care
  - our defence against vulnerability
- Winnicott - icu care can be terrifying but its the non response of carers that distresses patients
  - winnicott - the infant and maternal carer together form a unit - and herein lies our vulnerability (Sideris 2019)

- ETT related discomfort and inability to speak are recognised as being most stressful and remembered events (Samuelson 2011)
- Nightmares and hallucinations are neither arbitrary nor meaningless ravings - it contextualises emotions
- Illness impairs the capacity for independent self care

- support nurtures safety:
  - receiving information about what is being done, being treated as the centre of attention, being treated as a whole person and being treated with compassion - staff communication relieves patient feelings about being powerless (Hofhuis et al 2008)

# Utility of pre transplant psychological measures to predict post transplant outcomes

- Main aim: appropriate organ allocation
- Depression pre predicts lower QOL post transplant, suicidal thoughts pre assoc with post Tx depression
- High submissiveness pre Tx predicts early rejection, low conscientiousness pre is assoc with greater non adherence post
- Pre Tx cognitive performance may predict poorer QOL after Tx



# brief COPE and further interventions

- Valid, reliable and meaningfully interpreted in LT pts (Amoyal et al 2016)
- ESLD characterized by prolonged waiting, deteriorating health and reduced QOL - facing uncertainty of Tx and possibility of death
- pre-Tx patterns of coping, decision making, attitude and social support are robust predictors of post-Tx adherence, liver functioning and psychological functioning
- briefCOPE - use to aid and facilitate interventions pre and post transplant adjustment



# Psychological / Psychiatric care units within the Transplant Unit

- Pre-transplant assessments, identification of high risk patient
- Care of patient whilst awaiting transplant and on the list
- Care of family members and social support whilst awaiting transplant and on the list
- Care within icu and ward immediately post transplant
- Care post transplant - check in and care - “transplant ok - psyche ok?”