

## Choosing The Right Treatment for Patients



How do researchers conclude that a treatment can help someone struggling with mental health issues? Occasionally, we encounter blog entries of how a person tried something that worked wonders for him or her. Although we might be tempted to draw conclusions from these (often impressive) stories, medical research is far more rigorous, requiring many more participants and a careful research design.

A recent study by the Institute of Mental Health Department of Child and Adolescent Psychiatry illustrates just how thorough this research process is. The team wanted to assess whether fish oil supplements could help children with disruptive behavior disorders (such as Attention Deficit Hyperactivity Disorder) manage their behaviors. To achieve this goal, they recruited 131 child participants and randomly assigned them to receive either 6 months of fish oil supplements or 6 months of a placebo (where participants ate capsules designed to look like the fish oil but contained no active ingredients). Even with this design, however, the researchers wanted to ensure that participants truly could not discern which supplement they were taking – after all, fish oil has a strong odor! If participants could guess what group they were in, that information alone might have changed their behaviors.

Thankfully, the research team found that neither child participants nor their parents could guess which supplement the children had received. It did not matter: how confident participants (or their parents) were, what reasons they cited for their guess, or any changes they had perceived (or thought they should notice); participants' accuracy was no better than chance.

Taken together, the study results are good news for the research team. They can now compare the fish oil and placebo groups to explore whether the children differed in disruptive behaviors. If benefits of fish oil are found, these cannot be attributed to psychological factors, and are likely to have arisen from the pharmaceutical actions of fish oil. Although the process seems onerous and technical, we hope this behind-the-scenes perspective gives you confidence in the conclusions drawn from medical trials!

Contributed by:

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Study Reference:

**An analysis of blinding success in a randomised controlled trial of fish oil omega-3 fatty acids (Liu, JCJ; Raine, A; Ang, RP, & Fung, DSS; Ann Acad Med Singapore 2015)**

## Thailand Ministry of Public Health Visits NHG Research & Development Office



The NHG RDO team with distinguished guests and overseas experts

On 11 May 2016, the NHG Research & Development Office (RDO) hosted a group of 21 delegates from the Thailand Ministry of Public Health. The Thai delegation was led by Dr Suphan Srithamma, Director-General, Department of Medical Services.

RDO and the delegates shared and learnt from each other on the respective governance structure, and how to improve processes and tackle issues related to clinical research. In addition, they discussed about the NHG's AAHRPP-accredited human research protection programme, research training and quality management programmes.

For more information on this event, please click [here](#).

AAHRPP: Association for the Accreditation of Human Research Protection Program

Contributed by  
**Partnerships & Outreach unit**  
Office of Human Research Protection Programme Research & Development Office, National Healthcare Group

## Award for Annals, Academy of Medicine Best Publication 2015

Award: Silver Prize

Title of Publication : An analysis of blinding success in a randomised controlled trial of fish oil omega-3 fatty acids

Research Team: Jean CJ Liu, Adrian Raine, Rebecca P Ang, Daniel SS Fung

As a researcher, finding 'no difference' between groups can sometimes make your heart sink. However, in a recent paper for the ANNALS Academy of Medicine Singapore, **we were pleased to report 'no difference' between two arms of our randomised controlled trial:** our participants could not tell which research arm they had been allocated to, and were successfully 'blinded' to the identity of the trial substance.

**Although researchers recognise blinding as the hallmark of a successful trial, evidence of blinding success is rarely reported.** When blinding fails, this could affect the validity of trial conclusions - particularly when trials involve subjective outcomes, as many psychiatric studies do. **In our case, apart from using subjective measures, our trial substance was also one that was notoriously difficult to blind - omega-3 fatty acids derived from fish oil ('omega 3').** From the outset, grant reviewers had raised questions about the strong odour and fishy taste of omega-3 supplements, suggesting that these were impossible to disguise! Accordingly, we searched for empirical evidence of blinding before drawing conclusions on how omega-3 might affect the outcomes we were interested in

(namely, the behaviour of children diagnosed with disruptive behaviour disorders).

To explore blinding efficacy, we administered a 5-item questionnaire asking 131 child participants: to guess which substance they had received (omega-3 vs. placebo), the confidence of their guess, the reason for their guess, whether they noticed any change, and whether they believed anything should change. This was administered within a week of supplement administration, before actual pharmaceutical effects could affect participants' views. To our great relief, we found that participants could not guess which supplement they had eaten. **It did not matter: how confident they were, what reasons they cited for their guess, or any changes they had perceived (or thought they should notice); participants' accuracy was simply no better than chance.** Finally, accuracy did not improve after 6 months of continued supplementation, and parents were likewise in the dark about which arm their child had been allocated.

Taken together, these results suggest that a clinical trial involving omega-3 supplementation

need not be 'fishy business'. **Despite the strong odors, our study suggests that the identity of omega-3 can be blinded to participants;** this gives us confidence that subsequent conclusions regarding omega-3 efficacy cannot be attributed merely to placebo effects.

Beyond our study, we have showcased a questionnaire and a series of analytical methods that will allow other researchers to search for evidence of blinding success. **Such an extensive investigation need not be undertaken for every clinical trial, but we do recommend it when - as with our study - the outcome measures are subjective and the identity of trial conditions may be difficult to mask.**

Contributed by  
**Dr Jean Liu**  
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Note: Dr Jean Liu was a Research Assistant at the Institute of Mental Health (IMH) when the study was conducted. She has since taken up an academic position with the Yale-NUS College.

## Psychology Research in the Transformation of Primary Care

Psychology in primary care has become a growing area of focus during the past few decades. In efforts to enhance accessibility, quality and affordability of care, psychologists in primary care partner and function within inter-disciplinary teams. We attend to patients and their families with mental health and health behaviour problems.

**Psychologists in primary care give emphasis to "whole person care". They integrate mental and physical health as an essential approach for the improvement of health, quality of care and patient experience** (Butler et al., 2008). Since 2014, established consensus on research competencies of psychologists required for them to work effectively in primary care medical settings have been accepted by the psychology community (McDaniel et. al., 2014).

Our team of clinical psychologists at the National Healthcare Group Polyclinics (NHGP) therefore decided to engage in research and evaluation of services, to boost the quality of care and improve patient outcomes. The team received 3 awards at the Singapore Primary Care Research Scientific Competition 2015. **We are involved in a series of research studies that explore psychological correlates of change expectancy in anxiety, depression and insomnia, and common mental health problems in primary care. We also aim to pilot research protocols on common brief psychological interventions for enhancing treatment adherence in patients with chronic diseases and mental health problems.**

To widen breadth and improve the quality of services delivered to our patients, **our**

**team will evaluate clinical outcomes to determine the optimal number and duration of consults needed for problem types addressed in our clinics of different severity levels. We are excited to pursue these studies that would directly improve our clinical practices, to offer focused and relevant help to meet patients' biopsychosocial needs.** With the changing healthcare landscape and evolving opportunities for psychology within collaborative and comprehensive patient care, NHGP psychologists will lose no time and actively work together with other healthcare professionals to advance mental health research in primary care.

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