



RUJUKAN

**DETECTING SCHIZOPHRENIA IN THE PRODROMAL PHASE:
SCREENING OF GENETIC RISK RELATIVES**

**MOHD RAZALI SALLEH
ZAHIRUDDIN OTHMAN
MUHD NAJIB MOHD ALWI
MOHD AZHAR MOHD YASSIN**

**DEPARTMENT OF PSYCHIATRY
SCHOOL OF MEDICAL SCIENCES
UNIVERSITI SAINS MALAYSIA
HEALTH CAMPUS
KOTA BHARU, KELANTAN
MALAYSIA**

(Submitted to Schizophrenia Research)

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SCREENING OF GENETIC RISK RELATIVES**

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UNIVERSITI SAINS MALAYSIA
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MALAYSIA**

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LAPORAN AKHIR PROJEK PENYELIDIKAN JANGKA PENDEK
FINAL REPORT OF SHORT TERM RESEARCH PROJECT

Sila kemukakan laporan akhir ini melalui Jawatankuasa Penyelidikan di Pusat Pengajian dan Dekan/Pengarah/Ketua Jabatan kepada Pejabat Pelantar Penyelidikan

1. Nama Ketua Penyelidikan / Projek: _____
 Nama Penyelidikan: _____

Prof. Senior/Minyakin / Asyiq Prof. Dr. / D. Asas/Puan/Dr. / MAM/ANIS

2. Pusat Tanggungjawab (PTJ): PP Sains Perubatan
 School/Department

3. Nama Penyelidikan Bersama: Dr. Zamrudah Ghuman, Dr. Mhd Naim Mhd Nawi, Dr. Mhd Azhar Mhd Yusoff

4. Tajuk Projek: Early intervention of schizophrenia; transition to psychosis among the relatives
 Title of Project

5. Rangka inisiatif/sumbangan/impak/kepentingan	6. Bilangan Penyelidikan	7. Bilangan Penerimaan	8. Bilangan Pelajar Penyelidikan
i) Pencapaian objektif projek: Achievement of project objectives	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
ii) Kualiti output: Quality of outputs	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
iii) Kualiti impak: Quality of impacts	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
iv) Pemindahan teknologi/potensi pengkomersialan: Technology transfer/commercialization potential	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
v) Kualiti dan usahasama : Quality and intensity of collaboration	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
vi) Penilaian kepentingan secara keseluruhan: Overall assessment of benefits	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>

(b) Menjalankan dan mengurus projek pembangunan produk, pengamiran atau produk penuliharaan paten atau aplikasi kepada dasar-dasar masyarakat.

Stateville, Robert, et al. (2010). *Product Development: A Guide to Success*. Boston, MA: Cengage Learning. Registration of Invention on Source and Origin.

Utami, I. (2010). *...*

Utami, I. (2010). *...*

Utami, I. (2010). *...*

(c) Latihan Sumber Manusia

Training of Human Resources

1) Bekas Sarjana Muda

Ex-graduate Students

2) Pemula (Kerjaya) / Fresh Graduate

2) Pemula (Kerjaya) / Fresh Graduate

(d) Lain-lain

Others

9. Peralatan yang Telah Dibeli:

Equipment that has been purchased

TIADA



Tandatangan Penyelidik
Signature of Researcher

5/12/09

Tarikh
Date

Komen Jawatankuasa Penyelidikan Pusat Pengajian/Pusat
Comments by the Research Committees of Schools/Centres

This project has achieved three out of four objectives, with reasonable good expenditure.

As the output, a manuscript has been submitted to the "Schizophrenia Research" journal

This project has achieved the minimum required achievement

PROFESSOR AHMAD SUKARI HALIM
Chairman of Research Committee
School of Medical Sciences
Health Campus
Universiti Sains Malaysia
16150 Kubang Kerian, Kelantan.

TANDATANGAN PENERUSI
JAWATANKUASA PENYELIDIKAN
PUSAT PENGAJIAN/PUSAT

Signature of Chairman
[Research Committee of School/Centre]

7/1/10

Tarikh
Date

BORANG LAPORAN HASIL PENYELIDIKAN
PPSP

Tajuk geran: Early intervention of schizophrenia: transition to psychosis among the relatives

Penyelidik: Prof Mohd Razali Salleh

Jenis geran: USM Jangka Pendek

Tempoh geran: 1/5/2007-31/10/2009

Jenis laporan: Laporan Kemajuan Alatan di beli Ya:nyatakan.....

Laporan Akhir*: Tidak


OBJEKTIF SPESIFIK KAJIAN (sama seperti dalam proposal asaf)	SECARA RINGKAS TERANGKAN PENCAPAIAN/HASIL	OBJEKTIF TERCAPAI ATAU TIDAK
1. To identify a high risk of individual in the schizophrenic family who may transit to psychosis within a brief follow up period	The first degree relatives with high GAF score and positive in other assessment tools had high risk of transition to psychosis within a brief period	YES
2. To determine the features that distinguish between high-risk individuals who developed schizophrenia and who do not.	The features to distinguish between high risk and low risk individual could not be determined because of small number of positive cases and a short follow up period	NO
3. To assess the psychiatric morbidity among first degree relatives of schizophrenia	About 2.5% of the first degree relatives who had been screened were at ultra-high risk (UHR) to develop schizophrenia.	YES
4. To start early treatment and intervention for those who developed schizophrenia and assess their progress.	Those who developed schizophrenia were treated with anti-psychotics besides relevant psychosocial management which was conducted by the Community Mental Health team.	YES

- Laporan Akhir perlu disertakan salinan mamuskrip dan surat yang dihantar kepada mana-mana jurnal untuk penerbitan.

Nama Penyelidik Utama (PI): Mohd Razali Salleh

Tarikh: 9/12/2009

t.t.:

A handwritten signature in black ink, appearing to be 'Mohd Razali Salleh', written over a rectangular box. The signature is stylized and cursive.

Zimbra Mail@KK Kampus Kesehatan USM

mrazali@kb.usm.my

A manuscript number has been assigned: SCHRES-D-09-00727

1 Messages

A manuscript number has been assigned: SCHRES-D-09-00727

Monday, November 16, 2009

2:21:30 AM

From: delisi76@aol.com

To: mrazali@kb.usm.my

Sender: ees.schres.d.50ede.8e588252@eesmail.elsevier.com

Ms. Ref. No.: SCHRES-D-09-00727

Title: Detecting schizophrenia in the prodromal phase: Screening of genetic risk relatives

Schizophrenia Research

Dear Razali,

Your submission entitled "Detecting schizophrenia in the prodromal phase: Screening of genetic risk relatives" has been assigned the following manuscript number: SCHRES-D-09-00727.

You may check on the progress of your paper by logging on to the Elsevier Editorial System as an author. The URL is <http://ees.elsevier.com/schres/>.

Your username is: Mohd Razali

Your password is: mohdrazali6656

Thank you for submitting your work to this journal.

Kind regards,

Lynn E. Delisi

Editor - Europe, Asia, ROW

Schizophrenia Research

UNIVERSITI SAINS MALAYSIA
 JABATAN BENDAHARI
 KUMPULAN WANG PENYELIDIKAN GERAN USM(304)
 PENYATA PERBELANJAAN SEHINGGA 30 NOVEMBER 2009

Jumlah Geran:	RM	10,518.00	Ketua Projek:	PROF MOHD RAZALI SALLEH
Peruntukan 2007 (Tahun 1)	RM	5,259.00	Tajuk Projek:	Early Intervention of Schizophrenia: Transition to Psychosis Among The Relatives
Peruntukan 2008 (Tahun 2)	RM	5,259.00		
Peruntukan 2009 (Tahun 3)	RM	0.00	Tempoh:	01 Mei 07 - 31 Okt 09
			No.Akaun:	304/PPSP/6131528

Kwg	Akaun	PTJ	Projek	Donor	Peruntukan Projek	Perbelanjaan Kumpul Hingga Tahun Lalu	Peruntukan Semasa	Tanggung Semasa	Bayaran Tahun Semasa	Belanja Tahun Semasa	Baki Projek
304	11000	PPSP	6131528		5,734.00	6,860.68	(1,126.68)	-	-	-	(1,126.68)
304	14000	PPSP	6131528		-	-	-	-	-	-	-
304	15000	PPSP	6131528		-	-	-	-	-	-	-
304	21000	PPSP	6131528		3,484.00	744.50	2,739.50	-	188.30	188.30	2,551.20
304	22000	PPSP	6131528		-	-	-	-	-	-	-
304	23000	PPSP	6131528		150.00	-	150.00	-	-	-	150.00
304	24000	PPSP	6131528		-	-	-	-	-	-	-
304	25000	PPSP	6131528		-	-	-	-	-	-	-
304	26000	PPSP	6131528		-	-	-	-	-	-	-
304	27000	PPSP	6131528		150.00	220.80	(70.80)	-	-	-	(70.80)
304	28000	PPSP	6131528		-	-	-	-	-	-	-
304	29000	PPSP	6131528		1,000.00	505.60	494.40	-	75.00	75.00	419.40
304	32000	PPSP	6131528		-	-	-	-	-	-	-
304	35000	PPSP	6131528		-	-	-	-	-	-	-
304	A11102	PPSP	6131528		-	-	-	400.00	-	400.00	(400.00)
304	A11559	PPSP	6131528		-	-	-	500.00	-	500.00	(500.00)
					10,518.00	8,331.58	2,186.42	900.00	263.30	1,163.30	1,023.12

Abstract

Background: To screen and detect individuals at ultra high risk (UHR) for psychosis and evaluate the efficacy of a screening program.

Methods: This a two-stage study involving relatives of patients with schizophrenia. The non-first degree relatives were additionally screened with the Screening Questionnaires (SQ), besides the GHQ-12 and GAF in the first stage. All the positive subjects will proceed to the second stage assessment.

Results: Sixty four (14.2 %) of 450 selective relatives were positive in the first stage. In the second stage, only 14 (3.1 %) were positive (UHR subject). The sensitivity of the SQ (67%) was much better than the GHQ (29%), but the specificity was not much difference. The detection rate of UHR individuals was higher in non-first degree relatives.

Implications: Screening of genetic risk relatives is feasible. The high detection rate among non-first degree relatives is contributed by the addition of the SQ. The GHQ is not suitable for screening in early psychosis.

Key words: schizophrenia, early intervention, prodromal symptoms, screening program, GHQ

Abstrak

Latar-belakang: Tujuan kajian ini adalah untuk mengesan subjek pada tahap risiko yang terlampau tinggi (RTT) untuk mendapatkan psikosis dalam waktu terdekat dan menilai keberkesanan program saringan tersebut

Teknik kajian: Kajian ini adalah dua peringkat yang melibatkan keluarga pesakit skizofrenia. Ahli Keluarga terpilih yang bukan utama (berjauhan) disaring dengan soalan saringan (SQ) sebagai tambahan kepada GHQ-12 dan GAF pada peringkat pertama. Semua subjek yang positif akan memasuki peringkat kedua penilaian.

Keputusan: Enam puluh empat (14.2%) daripada 450 ahli keluarga yang terpilih adalah positif pada saringan awal. Pada peringkat kedua, hanya 14 (3.1%) didapati positif (subjek RTT). Sensitiviti SQ (67%) adalah jauh lebih baik dari GHQ (29%), tetapi spesifisiti tidak banyak berbeza. Kadar pengesanan individu RTT adalah lebih tinggi dikalangan ahli keluarga yang bukan utama

Kesimpulan: Saringan terhadap ahli keluarga yang mempunyai risiko genetik boleh dilakukan dengan mudah. Kadar pengesanan yang tinggi dikalangan ahli keluarga yang bukan utama adalah disumbangkan oleh SQ. GHQ didapati tidak sesuai untuk digunakan dalam saringan pada peringkat awal psikosis.

Kata Kunci: Skizofrenia, intervensi awal, gejala prodromal