

COMPLIANCE TO FOLLOW-UP AMONG THE CHILD ABUSE CASES: A SINGLE CENTRE STUDY

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TABLE OF CONTENTS

CHAPTER 1: THE PRELIMINARIES

Page

1.1 Title page	i
1.2 Table of content	ii
1.3 Acknowledgement	iii
1.4 List of tables and figures	iv
1.5 List of abbreviations and nomenclature	v
1.6 Abstrak	vi-vii
1.7 Abstract	viii-ix

CHAPTER II: THE TEXT

2.1 Section A: Introduction	2-10
2.2 Section B: Study protocol.	11
2.2.1 Documents submitted for ethical approval	12-38
2.2.2 Ethical approval letter	39-42
2.3 Section C: Manuscript ready for submission	43
2.3.1 Introduction	48-57
2.3.2 Methodology	58-60
2.3.3 Results	61-64
2.3.4 Discussion	65-70
2.3.5 Conclusion	71-72
2.3.6 References	73-78
2.3.7 Tables and figure	79-84

CHAPTER III: THE REFERENCE MATERIALS

3.1 Appendices	85
3.1.1 Data collection sheet	86
3.1.2 Instructions to authors	87-89
3.1.3 Copyright Assignment Form	90-101
3.1.4 Raw data in SPSS software in CD	102-103
	104

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LIST OF TABLES AND FIGURES

Table 1: Sociodemographic data of the participants

Table 2: Characteristic of child abuse

Table 3: Simple and multiple logistic regression for factors associated with non-compliance to follow up

LIST OF ABBREVIATIONS AND NOMENCLATURES

HUSM. : Hospital Universiti Sains Malaysia

SCAN. : Suspected Child Abused and Neglect

OSCC. : One Stop Crisis Centre

WHO : World Health Organization

ADHD : Attention Deficit Hyperactivity Disorder

ED : Emergency department

SMS. : Short Message Service

ABSTRAK

Penderaan kanak-kanak masih menjadi topik tabu di kalangan rakyat Malaysia tempatan. Ia dikaitkan dengan kepercayaan budaya terutamanya dalam penderaan seksual di mana kesan perbuatan jatuh ke atas mangsa dan ahli keluarganya, dari segi pelaku (sumbang mahram), aib, emosi dan sosial. Ia juga penting untuk memastikan kesejahteraan dan emosi yang stabil ke atas mangsa selepas kejadian ketika rawatan susulan. Latar belakang sosioekonomi yang lemah, jenis penderaan, penderaan seksual terutamanya merupakan salah satu faktor risiko ketidakpatuhan susulan di klinik pesakit luar.

Pasukan Suspected Child Abuse and Neglect (SCAN) telah ditubuhkan di Malaysia pada tahun 1985 sebagai sebuah organisasi untuk melindungi kanak-kanak daripada penderaan dan pengabaian. Selepas itu, pada Ogos 1997, pasukan SCAN telah ditubuhkan di Hospital Universiti Sains Malaysia (USM) yang terdiri daripada pelbagai jabatan yang berkenaan.

Objektif: Matlamat kajian adalah untuk mengenalpasti kes penderaan kanak-kanak dan meneroka risiko yang berkaitan dengan ketidakpatuhan untuk tindakan susulan.

Kaedah dan bahan: Senarai kes tersebut diperoleh daripada pasukan Suspected Child Abuse and Neglect (SCAN) Hospital Universiti Sains Malaysia. Proforma piawai telah dibuat untuk merekodkan data demografi dan klinikal. Semakan nota kes retrospektif telah dilakukan dalam kes yang direkodkan dari tahun 2014 hingga 2020, di mana 392 kes telah dikenal pasti.

Keputusan: Hanya 311 folder boleh dikesan dan dimasukkan ke dalam kajian, selebihnya tidak dapat di kesan di unit rekod. Kes penderaan seksual dilaporkan dalam 261 kes (83.9%) diikuti oleh baki kes penderaan fizikal. Pengabaian fizikal dan emosi tidak didokumenkan

kerana ia mungkin bersama penderaan lain dan tidak dapat direkodkan. Terdapat 190 (61.1%) kanak-kanak yang tidak hadir di hari rawatan susulan dalam tempoh kajian. Regresi logistik binari mudah mendedahkan bahawa faktor penting yang dikaitkan dengan ketidakpatuhan untuk membuat susulan selepas semakan pasukan SCAN ialah umur (di antara 14-18 tahun, P value 0.04), jenis penderaan (penderaan seksual, p value 0.08) dan tahap pendidikan pesakit (mendapat pendidikan, p value 0.19). Dalam regresi logistik berganda, kami tidak dapat mengenal pasti faktor penting yang berkaitan dengan ketidakpatuhan susulan di klinik pesakit luar.

Kesimpulan: Kajian ini menyediakan kajian deskriptif mengenai kes penderaan kanak-kanak di dalam negara. Kami tidak dapat mengenal pasti sebarang perkaitan daripada profil sosiodemografik untuk dikaitkan dengan ketidakpatuhan kepada susulan.

354 patah perkataan

Kata kunci: penderaan kanak - kanak, pematuhan, susulan, pediatrik

ABSTRACT

Child abuse remains a taboo topic among the local Malaysian. It is associated with cultural belief especially in sexual abuse where the consequences of act fall on victims and its family members in relation to perpetrators (incest), social embarrassment, emotional, consequences and social issues. It is importance for follow up post episode to ensure wellbeing/ determine emotional state of the victim. Poor socioeconomic background, type of abuse especially sexual abuse mainly one of risk factor for noncompliance to follow up.

Suspected Child Abuse and Neglect (SCAN) team was developed in Malaysia in 1985 as an organization to safeguard children from abuse and neglect. Subsequently, August 1997, SCAN team was established at Hospital Universiti Sains Malaysia (USM). It is a multidisciplinary team involvement as it integrates multi-departments collaboration.

Objective: The aim of the study was to explore the type of child abuse cases and explore risk factors associated with non-compliance to follow up.

Methods and materials: The list of cases of was obtained from Suspected Child Abuse and Neglect (SCAN) team at Hospital Universiti Sains Malaysia. A standardized proforma was made to capture demographic and clinical data. A retrospective case note review was done in cases captured from year 2014 until 2020, where 392 cases were identified.

Results: Only 311 folders could be traced and included in the study, while others unable to trace from record office due to missing folders. Sexual abuse cases were reported in the 261 cases (83.9%) followed by remaining physical abuse cases. Physical and emotional neglect

were not documented as it may co-exist with other abuse and was not captured due to its retrospective record review. There were 190 (61.1%) children who were non-compliant to follow up in the study period. Simple binary logistic regression revealed that the significant factors associated with non-compliance to follow up following SCAN team review were age (between 14-18years old, COR 1.60, 95% CI 1.01-2.80, P value of 0.048), type of abuse (sexual abuse, COR 1.72, 95% CI 0.94-3.16, P value of 0.08) and educational level of patients (COR 1.37, 95% CI 0.85-2.20, p value of 0.19). In multiple logistic regression, we were not able to identify significant factors associated with non-compliance to follow-up at the outpatient's clinic.

Conclusion: This study provides a descriptive study on the child abuse cases locally. We could not identify any association from the sociodemographic profile to associate with the non-compliance to follow-up.

400 words

Keywords: child abuse, compliance, follow up, pediatrics

CHAPTER II

THE TEXT

2.1 SECTION A

Introduction

INTRODUCTION

Child abuse and neglect are a widespread global problem causing major impact on children's health and safety around the world. Under the Child Act 2001, child abuse is defined as "any potential risk of a child being physically, sexually, emotionally injured or neglected in terms of adequate care, supervision and safety" (1). According to WHO child maltreatment data, nearly 300 million or 3 in 4 children in the age between 2-4 years regularly suffer physical punishment and/or psychological violence at the hands of parents/caregivers (2). It also reported 1 in 5 women and 1 in 13 men reported being sexually abused during childhood aged 0-17 years (2). Despite there are completion of many national surveys but the data from many countries are still lacking including Malaysia.

Child abuse encompasses all types of abuse and exploitation, resulting in harm to the health, growth, or dignity of the child. There are 4 main forms of child abuse which is physical violence, sexual abuse, mental abuse, and neglect. All clinical staff have the obligation to safeguard children from potential physical or emotional injury(8). Physical abuse is defined as an act of commission by a caregiver that cause actual physical harm or have the potential for harm (8). Sexual abuse is an act in which a care giver or adult in a power and trust position uses a child for sexual gratification (8). Physical neglect is a failure of a parent to provide for the development of the child in 1 or more of the following areas: health, education, emotional development, nutrition, shelter, and safe living conditions (8). While emotional neglect is a pattern of behavior that impairs a child's emotional development or sense of self-worth. This may include constant criticism, threats, or rejection as well as withholding love, support, or guidance(8).

There were many issues on child abuse in Malaysian hospitals, but this has often been neglected by healthcare providers, policy health makers and community, due to its sensitive information and social taboo (3). The first SCAN team was set up in 1985 at General Hospital Kuala Lumpur (4). The abuse cases only reached its popularity amongst Malaysian community in 1989 following the death of a severely abused child. (4) The SCAN team was Malaysia's only organization dealing with child violence and used its advocacy position to petition the government of Malaysia for reforms on child's safety. The SCAN team with other agencies work in tandem to prepare the 'Child Protection Act 1991', and later in the year 1998 received an international recognition by the United Nations 'for protecting the lives of children' (5). The latest version is Child Act 2017 which is used to provide provisions and protect abused children or children in need of care and protection.

Sexual Child Abuse and Neglect (SCAN) team was developed in Malaysia to safeguard children from abuse and neglect. Its service in the state hospital is structured, multidisciplinary team management and acts as a support service or programmed for children, families, and hospital workers (3). Among its functions are to assess the likelihood of abuse or neglect for referred cases, to provide coordination amongst the various agencies in case of evaluation, management and reporting of child abuse cases, to develop and review hospital policies and procedures for the handling of suspected or actual cases of child abuse and/or neglect, to provide and organize echo training for the state, to maintain a database on the cases handled by the team and to enhance community awareness on the prevention and reporting of SCAN cases (2). The hospital members of the SCAN Team were identified by the hospital and qualified to assess and treat children.

One Stop Crisis Centre (OSCC) is a 24-hour ‘one stop crisis center’ which is generally located in Emergency Department and served as an entry point for all child abuse cases to the hospital. It provides a private area for child and family to be interviewed by healthcare worker, welfare officers or police and initiation of medical examination by doctors. In most instances, the child will be subsequently admitted to the hospital for further assessment, treatment of any physical injuries and counselling. The OSCC also serves as a one-stop centre for adult survivors of domestic and sexual violence (2).

Roles of hospital professionals such as doctors were to examine and evaluate, to treat physical injuries and mental health problems consequent to abuse/neglect, to work with welfare officer and police to protect the child, to meet the needs of the criminal justice and child protection system by careful documentation of injuries, collection of evidence and interpretation of findings, to provide reports and opinions of medical examination, including that of a psychiatric assessment of emotional trauma that can be used as evidence in care or criminal proceedings. While for nurses, they function as to foster awareness among the nursing staff, particularly in the emergency and paediatric departments, of the signs of possible child abuse in order that detection of cases is made as early as possible, to maintain close communication with the social worker/police and the doctor in the handling of a case, to ensure close observation and documentation of the child’s behaviour with staff, parents and visitors, and the parents’ attitude/bonding towards the child and family relations. Medical social worker will do social assessment and conduct home visit, if necessary, to assist the doctors in reporting and coordinating with JKM and to maintain data on child abuse and neglect cases handled by hospitals. Child protector or JKM Officer will investigate and do social assessment of whether child is in need of further care and protection, to ensure protection of child and placement of

child in a safe environment, assist in rehabilitation of child and family, provide financial assistance, assistance for schooling and other social support and to provide data to the National Registry on all identified/ suspected cases of child abuse or neglect. One of role of police officers are to provide immediate protection to child and non- abuser parent or family members and investigation of offences and assisting prosecution of the offender. (2)

In Malaysia local context, popularity of abused cases has significantly risen after the fatality incident in 1989 (4). Kasmini Kassim et al conducted a study regarding Child sexual abuse: Psychosocial aspects of 101 cases seen in an urban Malaysian setting from Jun 1985 until December 1990. They conducted a cross sectional study which 555 confirmed as abused cases and 101 cases (18.2%) being sexual abused. 40 (39.6%) reported being abused for first time, 28 (27.7%) were sexually abused repeatedly and 33 (32.6%) unsure as children are very young (<4years old). Psychosocial factors contribute to sexual offences were 58% took place in absence of another adult at home, 14% unemployment, 11% with history of drug abused and only 1% the perpetrator being mentally ill and subnormal. Risk of sexual abused become higher when there are opportunities (eg: left alone with unemployed, drug abused person at home) (4).

Child abuse remain a taboo topic among the local Malaysian. It is due to the ‘cultural embarrassment’ towards victims (11), also because of societal discrimination against sexually abused victim and its family members in relation to perpetrators (incest). Furthermore, premarital sex and pregnancy out of wedlock were socially unacceptable in Malaysian and need to be kept hidden from neighbors and society, thus mostly victims were confined at home. This would probably lead to non-compliant to clinic follow up. Recent Malaysian Global School-

based student Survey (2012) study involving students aged 13 – 17 years old reported about 8.3% school children had premarital sex. (5)

To date, the care of the victims has shown promising improvement with the establishment of the SCAN team in the National Policy. According to a Bukit Aman Police Station report, there were 12171 SCAN cases among children between the years of 2018 and 2020 (7). This includes incidents of sexual abuse such as statutory rape, molested, incest, sodomy, and pornography, as well as cases of physical abuse, emotional abuse, missing children, and abandoned babies. According to statistics, females are more likely to be engaged in cases of sexual abuse (7). Both sexes have nearly the same number of incidences of physical abuse. It also mentioned a total of 112 deaths among physically abused children in Malaysian states between year 2018 and 2020. According to data, children from 1 to 7 years are more likely to be physically abused than children aged less than 1 year, and children aged more than 7 years old (7).

SCAN team at Hospital Universiti Sains Malaysia (USM) was established around August 1997(6). It is a multidisciplinary team involvement as it integrates multi-departments collaboration such as Paediatric, Obstetrics and Gynecology, Psychiatry, Emergency Department, Pediatric Surgery, social welfare officers, JKM officers and police officer among others. Among its functions are to identified type of abused case, diagnosis, and documentation, provided a safe environment while medical evaluation and social assessment is taking place, treatment of any injuries and mental health assessment/ counseling, drawing up a management plan in consultation with JKM and / or police, prior to discharge, and lastly for follow up appointment and review. Once patients are safe to be discharge home, they will be given follow up appointment one- or two-months' time. Since then, there has been improvement in detection

and referral of SCAN cases in our Emergency Department, reported cases has been increasing in trend and awareness has spread to the community.

Follow up appointment would be crucial to ensure the continuity of children's care and well-being involved and explore their coping strategies with their daily life (5). Sexual abuse, especially in older children and adolescents, can have long-term impacts on their development and sexual adaptability. Counselling or psychotherapy for the child and the adults concerned may lessen these effects (28). Physical abuse, particularly significant head trauma, also can have long-lasting effects on child's development. Thus, health care workers should emphasize on the importance and benefit of attending follow up appointment to the victims and its family to ensure long term issues could be addressed and identified.

A high non-attendance rate in outpatient clinics continues to pose a significant problem worldwide. It has negative consequences to costs of health care and quality of patient care. Paediatric return appointment adherence for child welfare-involved children in Los Angeles California by Janet U. Scheiderman et al based on primarily involved Latino caregivers and Latino child welfare in adherence to outpatient clinic appointment at paediatric medical clinic. Thirty-nine percent of all caregivers were non-adherent in returning for paediatric appointments. It was found that when return appointments were scheduled longer after the initial appointment, caregivers were less likely to bring children back for medical care. They also found out that nonadherence rate for return appointment was slightly higher for children in the child welfare system than in studies with other paediatric populations. Most caregivers

in this study were foster caregivers. Many foster caregivers have stressful lives with many responsibilities/ families' stress. (21)

A study regarding noncompliance to outpatient appointment was done by Mona L. McPherson et al about noncompliance with medical follow up after Pediatric Intensive Care. It was a prospective study involving 111 cases from February 2000 until August 2000. The outcome showed noncompliance in 49% of the patients. There were multiple factors leading to failure of turn up to follow up such as communication issues, insurance issues, forgot, transportation difficulties, parent unable to miss work or no reason. This study provides a description of the instructions and compliance with pediatric medical follow up after discharge from a PICU admission. (15)

From Tamin et al, there is an increasing number of both outpatients and inpatients attending the government hospitals in many parts of the world over the past few years. Similarly, this trend is also observed in all our outpatient clinics from 2015-2016. From this study non-attendance at the paediatric clinics in HUSM was 31.8%, which is comparable to studies from other countries including the USA but higher than in European countries. The non-attendance rate was high in all sub-speciality clinics, but clinics with a large number of non-chronic patients had a significantly higher non-attendance rate. The non-attendance rate was also significantly associated with rainy weather. Other associated factors include forgetfulness, being busy, sickness, no transportation, looking after sick person and parents claiming not to have received appointment date (23).

According to Azri et al, A good attendance is paramount for continuity of care, especially for chronic diseases. Any disruption to a good care may result in deterioration to a person's health, a special attention must be rendered to improve the outpatient attendance. A non-attendance of 20-30% is quoted as average, but this should not be deemed as effective way forward. A poor attendance creates a vicious cycle, and this impacts negatively on the physical wellbeing, as well as financially of all parties involved. It is important to note the commonest reason for non-attendance was forgetfulness that accounted for almost 50.5%. There are several groups that have been identified at risk for poor attendance such as education level, socio economic status and types of subspecialty clinics. However, from the study, poor socioeconomic status did not have any negative effect in attendance rate (24).

Based on this study, compliance to follow up is defined as first spontaneous return to the clinic within the time interval suggested without receiving a reminder call or letter (9). While noncompliance to follow up is defined as missing the follow up without receiving a reminder call or letter. We aim to explore the type of abuse, its demographic data, admission, and follow-up compliance among patients who were under the SCAN team clinic at Hospital USM, Malaysia between 2014-2020 and investigate the risk factors contributing to non-compliance of follow up. From this study, we expect higher noncompliance rate among child abuse cases were mostly consensual sexual abuse cases and that could potentially have led to noncompliance to clinic follow up. Prevention of noncompliance and attendance of follow up should be emphasized to victims, family members and caretakers. This would ensure victims and its family wellbeing and their coping strategy in their daily life were monitored, and appropriate intervention could be planned. Potential long-term complications such as psychosocial and emotional impact on the victims should also be screened.

2.1 SECTION B

Study protocol

2.2.1 Documents submitted for ethical approval

Dissertation proposal



School of Medical Science
University Science Malaysia
Prepared in partial requirement fulfilment
For the Degree of Master of Medicine (Pediatric)
2018/2022

**RETROSPECTIVE OF CHILD ABUSES CASES: THE COMPLIANCE TO
FOLLOW UP OF THE PAEDIATRIC CHILD ABUSE CASES ATTENDING
SCAN TEAM CLINIC AT UNIVERSITI SAINS MALAYSIA**

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Research title: RETROSPECTIVE OF CHILD ABUSE: THE COMPLIANCE TO FOLLOW UP OF THE PAEDIATRIC CHILD ABUSE CASES ATTENDING SCAN TEAM CLINIC AT UNIVERSITI SAINS MALAYSIA

Principal investigator : Dr Siti Rabihah Binti Abdul Halim, MMC 63898

Co-researchers : Dr Fahisham Taib, MMC 48787

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1. INTRODUCTION

1. BACKGROUND

Child abuse includes all forms of physical and emotional ill treatment, sexual abuse, neglect, and exploitation that results in actual or potential harm to the child's health, development, or dignity. The 4 major types of child abuse are physical abuse, sexual abuse, emotional abuse and neglect. All clinical workers have a responsibility to protect children from harm. (1)

In Malaysia, Sexual Child Abuse and Neglect (SCAN) was established to protect children from abuse and neglect. Its service is centralised, multidisciplinary team management in the government hospital and serve as a supportive service or programme to children, families and hospital staff. The SCAN Team hospital members have been identified by the hospital and trained to evaluate and manage child abuse cases. (2)

First SCAN team was set up in 1985 at General Hospital Kuala Lumpur in view of the emergence of number of cases seen. The SCAN team was the only organisation in Malaysia dealing with child abuse and used its advocacy role to lobby the Malaysian government for changes in protecting the child. The SCAN team involved with other agencies in preparing the Child Protection Act 1991, and later in year the 1998 received international recognition by the United Nations 'for protecting the lives of children'. The latest Child Act 2017 is used to provide provisions to protect abused children or children in need of care and protection. (3,4)

SCAN team at HUSM was established around August 1997. It is a multidisciplinary team involvement as it involved multiple department such as Paediatric, Obstetrics and Gynaecology, Psychiatry, Emergency department, Paediatric Surgery, etc. Since then there has been some improvement in detection of SCAN cases in Emergency Department, reported case has been increasing in trend and awareness has spread to the community. (5)

1.2 JUSTIFICATION TO CONDUCT THE STUDY

Problem statement/rationale:

1. There is limited study related to Suspected Child Abuse and Neglect (SCAN) team in local setting.
2. This study will focus on type of abused and proper follow up given for continuation of care.

3. Ultimately, this study will explore more on risk factors related to compliance and noncompliance for patient attending SCAN team. Also, further action will be taken for high risk/recurrent abused case who did not turn up for follow up.

2. RESEARCH HYPOTHESIS

Noncompliance to follow up in child abuse closely related to multiple factors; patient's, parent's and social's issues.

3. OBJECTIVE OF STUDY

3.1 GENERAL:

To explore different types of abuse and follow up compliance among patient who were seen by SCAN team at HUSM

3.2 SPECIFIC:

1. To describe the type of cases of child abuse
2. To determine proportion between those who are compliance and non- compliance for outpatient follow up
3. To determine the factors associated with noncompliance to follow up

4. LITERATURE REVIEW

Yu-Ching Chang et al conducted a study regarding child protection medical service demonstration centers in approaching child abuse and neglect in Taiwan which was published in 2016. It was a prospective study which involved 361 case reported within August 2014 until July 2015. The most common cases reported were neglect (n=279, 75.85%), physical (n=56, 15.51%) and sexual abuse (n=26, 7.2%). Male predominant was found in neglect and physical abuses, while female was found predominant in sexual abuse. The highest incidence of reported cases with abused occur in the age group of 1 until 6 years old (n=198, 54.86%) followed by 3 months-12 months (n=63, 17.45%). From this data, it can enhance the ability, alertness and inclination of professionals to identify suspected cases of child abuse and to increase the rate of registry.(1)

A retrospective study on The Pattern of Sexual Offences Attended at Accident and Emergency Department of HUSM from year 2000 to 2003 by Islam et al showed data of 439 sexual offence cases, were found to be female (100%) and were Muslims (100%). From this, child sexual abuse contributed about 116 of cases (26.4%). Perpetrators of child sexual abuse were also found among family members, which was categorized under incest. 46.7% were victims of incest from age group of 7-12 years old. Of the whole sample, only 4.8% of the women victims experienced both sodomy and vaginal rape. (11)

Kasmini Kassim et al conducted a study regarding Child sexual abuse: Psychosocial aspects of 101 cases seen in an urban Malaysian setting from Jun 1985 until December 1990. They conducted a cross sectional study which 555 confirmed as abused cases and 101 cases (18.2%) being sexual abused. 40 (39.6%) reported being abused for first time, 28 (27.7%) were sexually abused repeatedly and 33 (32.6%) unsure as children are very young (<4 years old).

Psychosocial factors contribute to sexual offences were 58% took place in absence of another adult at home, 14% unemployment, 11% with history of drug abused and only 1% the perpetrator being mentally ill and subnormal. Risk of sexual abused become higher when there are opportunities (eg: left alone with unemployed, drug abused person at home).(3)

There are relatively few studies on child abuse prevalence in Malaysia. The earliest prevalence study on childhood sexual abuse was published in 1996. Early hospital-based studies indicate that low socioeconomic status, family disharmony or disruption, and divorced or separated parents, personality disorders and parental substance abuse were associated with child physical abuse. Most of the published studies on sexual abuse in Malaysia are related to statutory rape. Pre-marital sex and pregnancy outside wedlock are largely socially unacceptable in Malaysia and may be kept hidden from others. It is also considered a statutory rape if the girl is below 16 years of age at the time of the sexual activity. In Anwar et al's study involving adolescent respondents aged 15-20 years, a slightly higher prevalence of premarital sexual experience at 12.6% was found, of which 75.7% had their sexual debut at 15-19 years and 38.2% were having multiple partners (at least 3 partners) (13).

A study regarding noncompliance to outpatient appointment was done by Mona L. McPherson et al about noncompliance with medical follow up after Pediatric Intensive Care. It was a prospective study involving 111 cases from February 2000 until August 2000. The outcome showed noncompliance in 49% of the patients. There were multiple factors leading to failure of turn up to follow up such as communication issues, insurance issues, forgot, transportation difficulties, parent unable to miss work or no reason. This study provides

a description of the instructions and compliance with pediatric medical follow up after discharge from a PICU admission. (6)

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From Tamin et al, there is an increasing number of both outpatients and inpatients attending the government hospitals in many parts of the world over the past few years. Similarly, this trend is also observed in all our outpatient clinics from 2015-2016. From this study non-attendance at the paediatric clinics in Hospital USM was 31.8%, which is comparable to studies from other countries including the USA but higher than in European countries. The non-attendance rate was high in all sub-speciality clinics, but clinics with a large number of non-chronic patients had a significantly higher non-attendance rate. The non-attendance rate was also significantly associated with rainy weather. Other associated factors include forgetfulness, being busy, sickness, no transportation, looking after sick person and parents claiming not to have received appointment date (14).

According to Azri et al, A good attendance is paramount for continuity of care, especially for chronic diseases. Any disruption to a good care may result in deterioration to a person's health, a special attention must be rendered to improve the outpatient attendance. A non-attendance of 20-30% is quoted as average, but this should not be deemed as effective way forward. A poor attendance creates a vicious cycle, and this impacts negatively on the physical wellbeing, as well as financially of all parties involved. It is important to note the commonest reason for non-attendance was forgetfulness that accounted for almost 50.5%. There are several groups that have been identified at risk for poor attendance such as education level, socio economic status and types of subspecialty clinics. However, from the study, poor socioeconomic status did not have any negative effect in attendance rate (15).

5. METHODOLOGY

5.1 STUDY DESIGN

The study design used is cross sectional study using retrospective record review.

5.2 STUDY PERIOD

Study will be conducted from the year 2014 until 2020.

5.3 STUDY LOCATIONS

Hospital Universiti Sains Malaysia.

5.4 REFERENCE POPULATION

Confirmed child abused patients at Hospital USM.

5.5 SOURCE OF POPULATION

Patients referred to Hospital USM SCAN team from year 2014 until 2020

6. STUDY PARTICIPANTS

6.1 INCLUSION CRITERIA

Confirmed child abused cases attending ED Hospital USM, below 18years old

6.2 EXCLUSION CRITERIA

Untraceable folder from record unit, inconclusive case outcome

7. SAMPLING FRAME

Patients referred to Hospital USM SCAN team from 1st January 2014- 31st December 2020 who fulfilled the inclusion and exclusion criteria.

7.1. SAMPLE SIZE CALCULATION

Sample size is calculated for objective 2 using single proportion formula.

$$n = \frac{z^2 p (1 - p)}{\Delta^2}$$

n = minimum required sample
z = value of standard normal distribution = 1.96
 Δ = precision = **0.05 %**
p = **0.54**

P value taken from patient compliance in the dermoscopic follow up of melanocytic lesions. Ungureanu L, Senilă S, Dănescu S, Vesa SC, Cosgarea R. J Eur Acad Dermatol Venereol. 2016 Mar;30(3):457-8 (9)

	P0	P1	n	(nx2) + 20%* =
Gender	0.44*	0.6	152	304 + 20%= 364
- Male				

$$n = 458$$

Considering 20%missing data, minimum required sample is + 10% = **458**

Sample size calculation for objective 3 using PS software version 3.1.6

a = level of significance = 0.05

Power of study= 0.8

m= ratio between compliance to noncompliance: 1

P0 = proportion of factor in compliance child abuse patients

P1 = expected proportion of factor in noncompliance patients

*20%: data entry error and missing data for variable of interest

8. SAMPLING METHOD

No sampling method will be applied. All eligible patients will be included.

1. RESEARCH TOOL

Data collected using:

Medical record and study proforma

9. DEFINITION OF OPERATIONAL TERMS

Compliance to follow up:	First spontaneous return to the clinic within the time interval suggested without receiving a reminder call or letter. (9)
Noncompliance to follow up	Missing the follow up without receiving a reminder call or letter
Definitions of types of child abuse: (1)	
1. Physical abuse:	Acts of commission by a caregiver that cause actual physical harm or have the potential for harm As stated in the medical record
2. Physical neglect:	Failure of a parent to provide for the development of the child in 1 or more of the following areas: health, education, emotional development, nutrition, shelter and safe living conditions. As stated in the medical record
3. Emotional neglect:	A pattern of behavior that impairs a child's emotional development or sense of self-worth. This may include constant criticism, threats, or rejection as well as withholding love, support, or guidance. As stated in the medical record
4. Sexual abuse:	Acts in which a caregiver or adult in a power and trust position uses a child for sexual gratification. As stated in the medical record.
Parental substance use	Exposing a child to harm prenatally due to the mother's use of legal or illegal drugs or other substances
Comorbidity	Presence of one or more additional conditions co-occurring with a primary condition, in the countable sense of the term

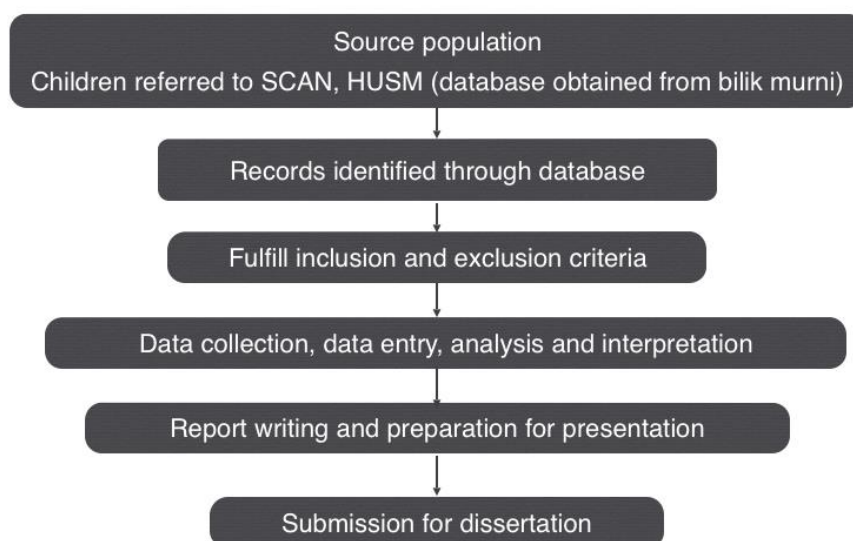
School attendance	Measure of the number of children who attend school and the amount of the time they present. Chronic absenteeism means missing too much school-for any reason-excused or unexcused as missing 10% during a school year (18 days)
Family households	Consist of two or more individuals who are related by birth, marriage, or adoption, although they also may include other unrelated people who occupy the same housing unit. (10)
Parents relationship - Not separated - Separated	- Breakdown in partnership between parents regardless of marital status. (11)

10. DATA COLLECTION METHOD

Data regarding cases obtained from records in Bilik Melur. The folder will be trace from the record department and data will be collected from it by using study pro-forma. The cases will be given respective number to ensure confidentiality.

Data will be gathered or obtained from medical officer of paediatric, psychiatric or any department case notes.

10.1 STUDY FLOW CHART



10.2 INTENDED STATISTICAL ANALYSIS

The analyses will be performed using the IBM SPSS Statistics for Windows Version 24.0. The following statistical methods were used: descriptive statistical for objective 1 and 2, simple and multiple logistic regression for objective 3.

11. EXPECTED RESULTS

11.1 Dummy tables

Table 1: Sociodemographic characteristics of study participants