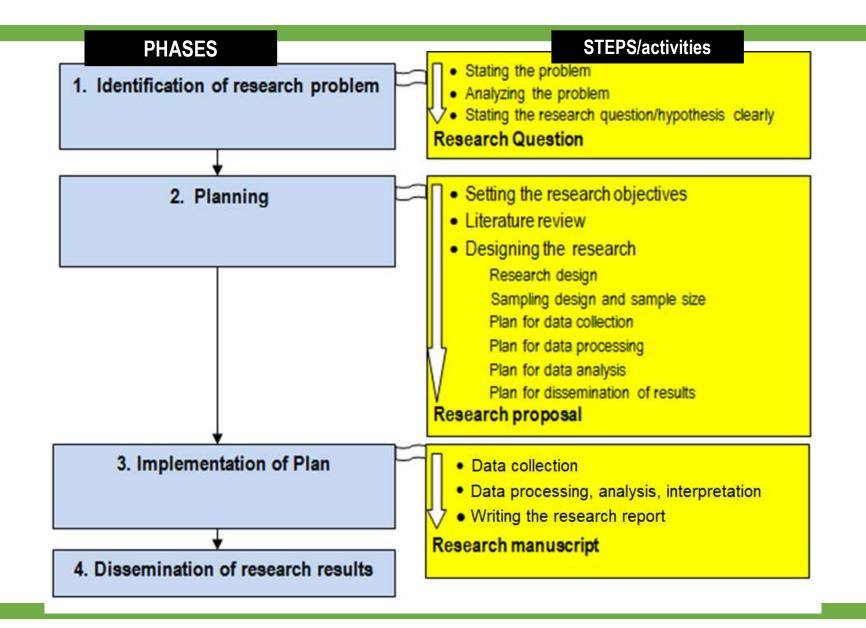
MODULE 3

Developing the Conceptual Framework

Louella Patricia D. Carpio, MD

Department of Epidemiology and Biostatistics, College of Public Health

University of the Philippines Manila



Objectives

At the end of the session, the participants should be able to:

- Define study variables
- Discuss the purpose of the conceptual framework in the study
- Differentiate the theoretical and conceptual frameworks
- Develop a conceptual framework given study objectives

Case scenario

You decided to conduct a research on determining if there is an association between frequency of use of social networking sites with psychological functioning among children and adolescents

After a thorough review of literature, how will you construct your conceptual framework?

Frameworks in Research

 Explains the logical structure of concepts of the research

 Grounds the research in theoretical constructs

Aim:

- make research more meaningful and appropriate to theoretical constructs in the research field
- Assist in providing the impetus to the research inquiry

Conceptual Framework

- A structure developed by the researcher to explain the phenomenon being studied
- It links the concepts used in organizing the knowledge espoused by the researcher
- Presents an integrated way of looking a problem under the study
- In a statistical viewpoint, it pronounces the relationships between the main variables of a study

Variables

- Any person, place or time characteristic that you are trying to measure
- Phenomenon that you are trying to describe
- have more than one value

Person variable

Age

- Respondent's reported age in years
- Respondent's age group: (19-34, 35-49, 50-64, ≥65)

Sex

• Respondent's reported sex: Male/ Female

Research variables

Is there an association between frequency of use of social networking sites with psychological functioning among children and adolescents?

Independent Variable

Use of SNS

- Measured as number of hours spent on social media websites
- Grouped into three categories:
- Infrequent or no use of SNSs
- Daily use of SNSs of 2 hours or less (regular)
- Daily use of SNS of more than 2 hours (frequent)

Dependent Variable

Psychological Functioning

- Self-reported mental health [Response to question How would you rate your mental or emotional health? (poor, fair, good, very
- good, excellent)]
- Psychological distress [total score using the Kessler Psychological Distress Scale: ≥22 high psychological distress, <22 low psychological distress

Research variables

Independent Variable Hypothesized to be a factor contributing to the development of the outcome

- Manipulated variable in an experiment
- Exposure variable in an observational study

Dependent Variable

Outcome variable

Confounding Variable

Extraneous variables associated with both exposure and outcome

Research variables

Is an association between frequency of use of social networking sites with psychological functioning among children and adolescents?

Independent Variable

Frequency of use of SNS

Dependent Variable

Psychological functioning

Confounding Variable

Age, Sex, Socioeconomic status, Parental education

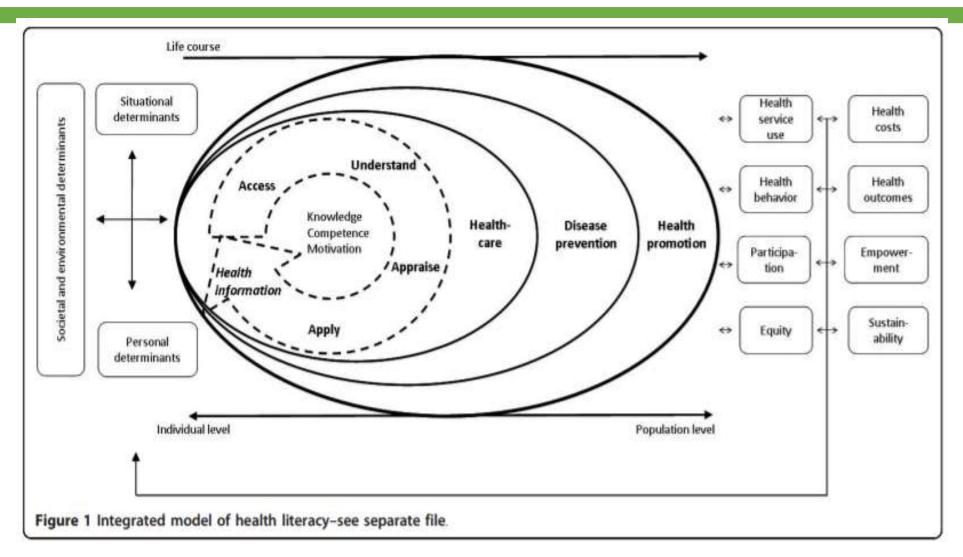
Conceptual Framework

- A structure developed by the researcher to explain the phenomenon being studied
- It links the concepts used in organizing the knowledge espoused by the researcher
- Presents an integrated way of looking a problem under the study
- In a statistical viewpoint, it pronounces the relationships between the main variables of a study

Is this the same as the theoretical framework?

Theoretical framework

- based on an existing theory in a field of inquiry that is related and/or reflects the hypothesis of a study
- is any empirical or quasi-empirical theory of social and or psychological processes that can be applied to the understanding of the phenomena



Theoretical vs. Conceptual Framework

Theoretical Framework	Conceptual Framework
based on existing theory/theories in the literature which has been tested and validated by other scholars	based on the concepts which are the main variables in a study
It is in the form of a model that pivots a study and/or the results of their studies.	It is a researcher's own constructed model that s/he uses to explain the relationship that exists between the main variables in his/her study It can also be an adaptation of a model in an existing theory which a researcher adapts to suit his/her research purpose
It consists of theories that seem interrelated with their propositions deduced	It consists of concepts interconnected to explain the relationships between them and how the researcher asserts to answer the research problem defined

Conceptual Framework

Diagrammatic representation of how the concepts underpinning the study relate to one another

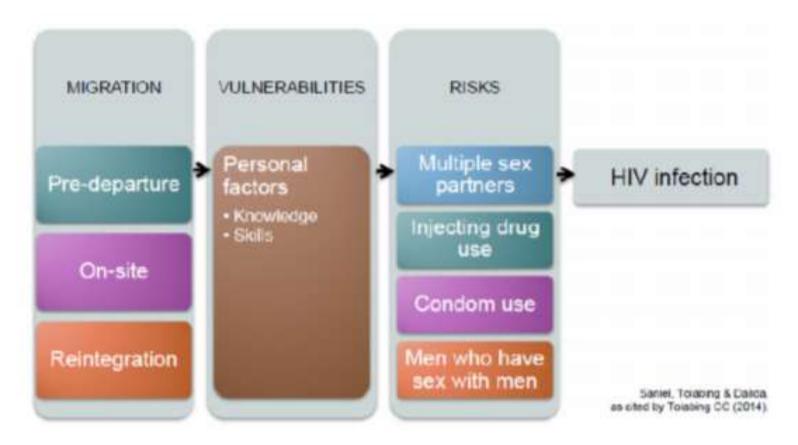
How do we relate our concepts (variables)?

Developing the Conceptual framework

- Study type: analytic or descriptive
- Show the key concepts in the study
 - What is the outcome of interest?
 - What are the primary factor/s of interest that are hypothesized to lead to or affect the outcome?

Factor/s that contribute to the outcome

Conceptual framework for descriptive studies



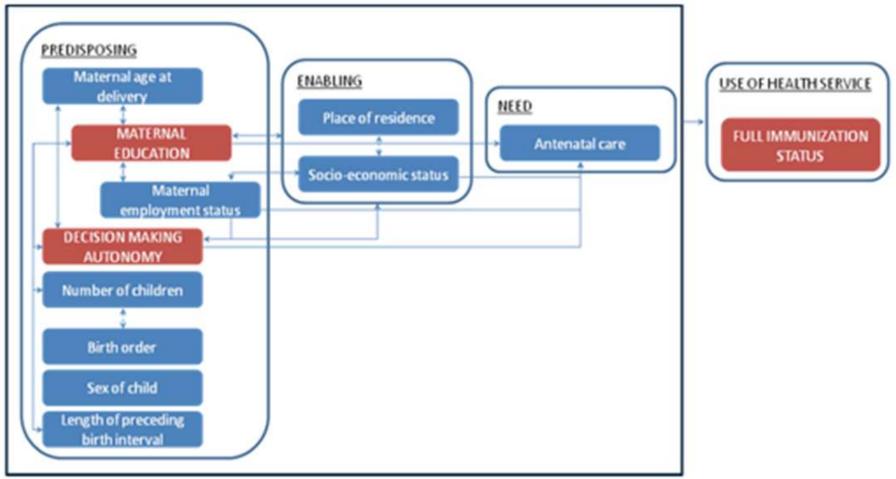
Developing the conceptual framework

Identify the relationships of key concepts with each other Confounder What other factors may affect outcome? Factors that Outcome contribute to the outcome

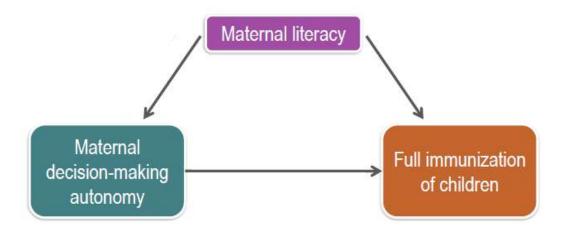
Rules in developing the conceptual framework

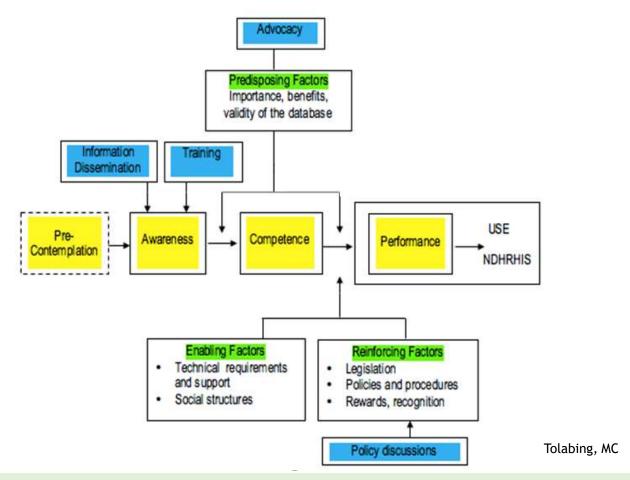
- Show the direction of the study
- Label primary factor/s of interest (main outcome, main exposure)
- No double-headed arrow; Flow of the framework cannot be circular
- All key concepts/variables should be placed in the framework
- If it will not be measured in your study, may use dashed lines
- All arrows presented should be supported by the literature review
- Variables should be consistent from the framework, to the operational definitions, to data collection and analysis

Conceptual framework (analytic)

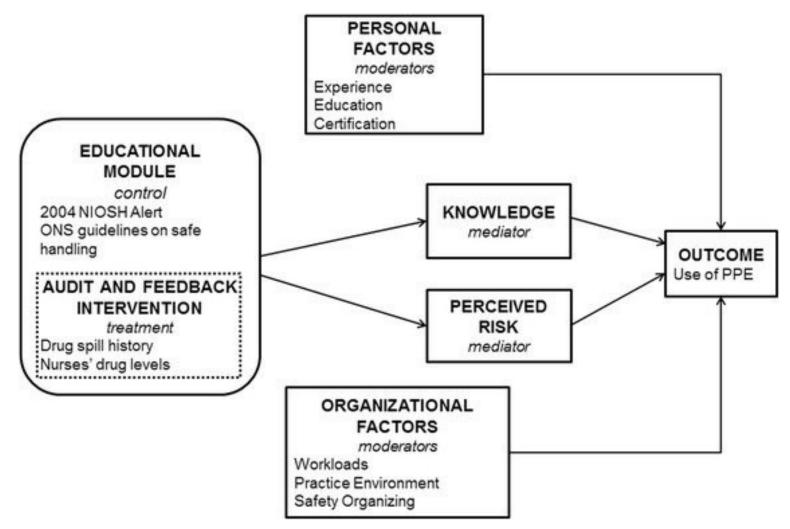


Conceptual framework (analytic)



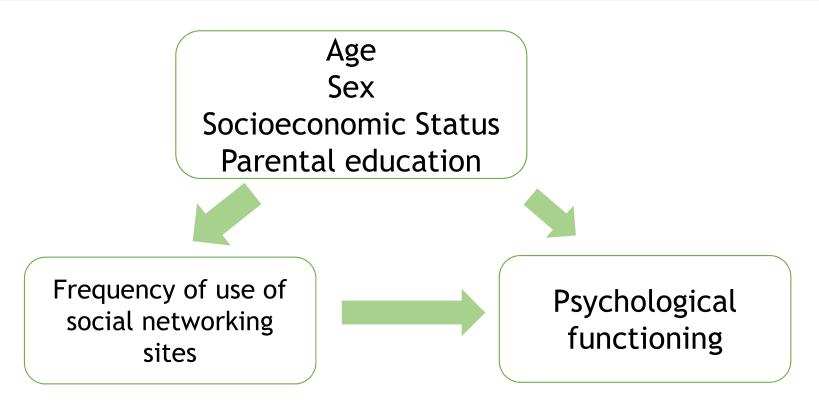


Objective: To determine perceived factors that influence the use and maintenance of the NDHRHIS (National Database of Human Resources for Health Information System)



Source: https://www.researchgate.net/publication/275672475_DEFENS__Drug_Exposure_Feedback_and_Education_for_Nurses%27_Safety_study_protocol_for_a_randomized_controlled_trial

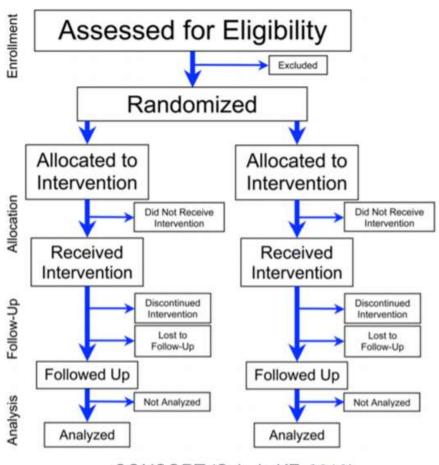
Is there an association between frequency of use of social networking sites with psychological functioning among children and adolescents?



Conceptual framework is

<u>NOT</u>

A research design or schematic diagram

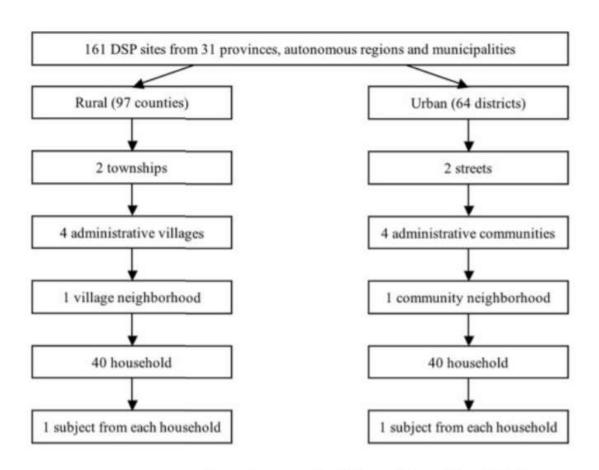


CONSORT (Schulz KF, 2010).

Conceptual framework is

<u>NOT</u>

A sampling methodology



Sampling methodology (Peng Yin, 2011).

References

- Adom, D., Hussein, E.K., & Agyem, J.A. (2018). Theoretical and Conceptual Framework:
 Mandatory Ingredients of a Quality Research. International Journal of Scientific Research.
 Retrieved from Researchgate: https://www.researchgate.net/publication/322204158
- Co, K,C,D. (2019). Conceptual Framework [Lecture slides]. UP Manila
- Mensah, R.O., Agyemang, F., Acquah, A., Babah, P.A & Dontoh, J. (2020). Discourses on Conceptual and Theoretical Frameworks in Research: Meaning and Implications for Researchers. Journal of African Interdisciplinary Studies, 4(5), 53 - 64.
- Sampasa-Kanyinga, H., & Lewis, R.F. (2015). Frequent Use of Social Networking Sites is Associated with Poor Psychological Functioning Among Children and Adolescents. Cyberpsychology, Behavior, and Social Networking, 18(7)
- USC Libraries. (nd). Organizing Your Social Sciences Research Paper. Retrieved from University of Southern California:
 - https://libguides.usc.edu/writingguide/variables#:~:text=A%20variable%20in%20research%20simply,the%20variable%20you%20are%20using.

Writeshop

Develop the conceptual framework of the study

- Specify your study objectives
- List your study variables
- Identify the outcome of interest and the variables to be described if descriptive
- Identify the primary exposure variable/s, outcome variable/s of interest and confounders, if analytic
- Illustrate the relationships of the variables through blocks and arrows