

FACTORS AFFECTING IMMUNOSUPPRESSIVE MEDICATION ADHERENCE IN LIVER TRANSPLANT RECIPIENTS WITH POOR ADHERENCE: A QUALITATIVE STUDY

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INTRODUCTION AND AIM

- Medication adherence refers to patients' behavior of taking their medication as prescribed.
- Taking too many medications for a long period of time might cause medication non-adherence in liver transplant recipients.
- Preserving graft functions and preventing rejection is closely related to immunosuppressive medication adherence in liver transplant recipients.
- Therefore, it is essential to determine factors affecting immunosuppressive medication use positively or negatively in liver transplant recipients.
- This study aimed to explore the use of immunosuppressive medication experience in liver transplant recipients with poor adherence and reveal the factors affecting the medication adherence.

METHOD

The study was conducted as a qualitative study with phenomenological approach.


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graph TD; A[The study was conducted as a qualitative study with phenomenological approach.] --> B[The participants in this study were selected via the purposive sampling method.]; B --> C[The purposive sampling criteria for the study were using immunosuppressive medication for at least three months and, poor or non-adherence to immunosuppressive medication.];
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The participants in this study were selected via the purposive sampling method.


The purposive sampling criteria for the study were using immunosuppressive medication for at least three months and, poor or non-adherence to immunosuppressive medication.

METHOD

12 liver transplant recipients with poor adherence were identified at the transplant center. Poor adherence in the form of skipping doses, delaying doses, and taking the medication early or late was determined.



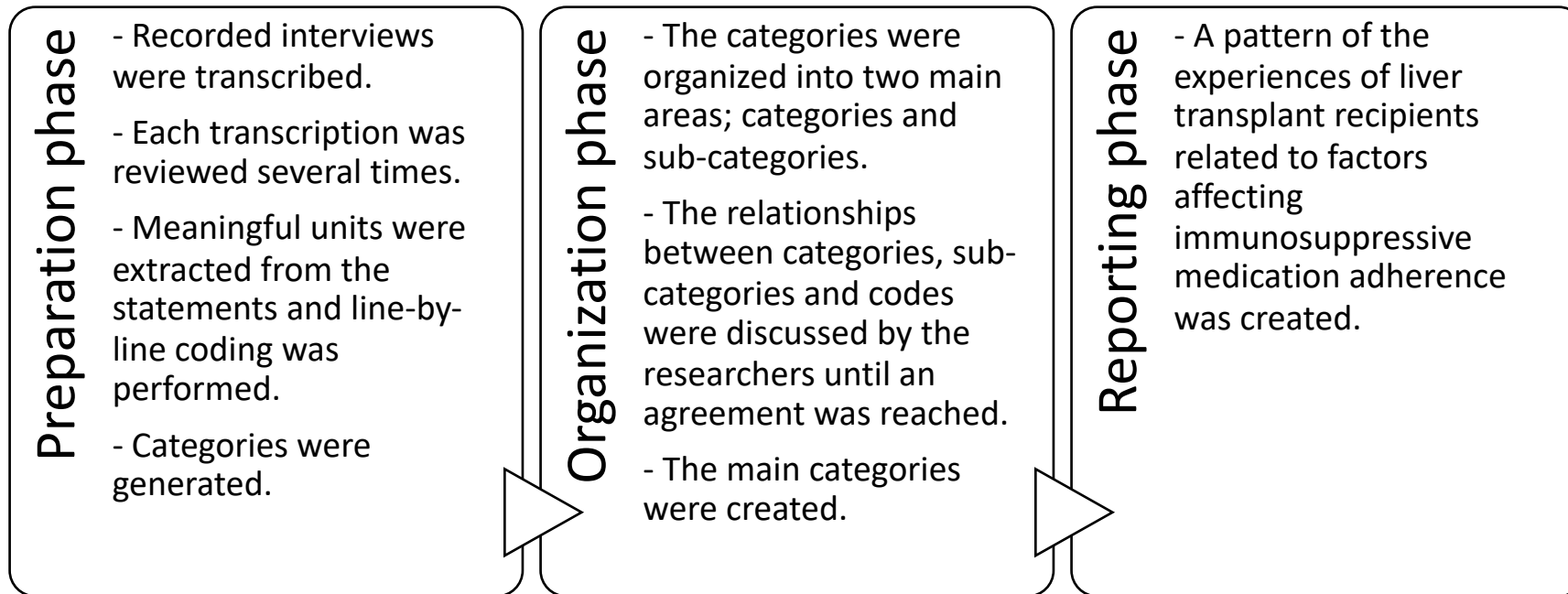
Seven recipients out of 12, who agreed to participate, were included until the data saturation was reached in the study.



Data was collected via in-depth personal interview between September 2019 and January 2020.

METHOD

- The study was approved by the Hacettepe University Non-Interventional Clinical Research Ethics Board (decision no: GO18/ 1178).
- Data analysis was conducted through **inductive content analysis** with three steps of preparation, organization, and reporting phases.



Content analysis process

RESULT

Demographic Characteristics of Participants									
Participants	Sex	Age	Marital status	Education	Job	Cause of transplantation	Time of liver transplant	Donor type	IS Medications
1	Female	33	Married	High School	Not working	Wilson	2001	Deceased	CNI Prednisolone
2	Male	25	Single	Undergraduate	Not working	Glycogen storage disease	2008	Living	CNI
3	Male	52	Married	Primary school	Farmer	Cryptogenic cirrhosis	2005	Deceased	CNI Prednisolone
4	Male	50	Married	High school	Not working	Hepatitis B	2007	Deceased	CNI Prednisolone
5	Male	28	Single	Primary school	Estate agent	Hepatitis B	2006	Deceased	CNI Prednisolone MMF
6	Male	67	Married	Primary school	Farmer	Autoimmune	2009	Deceased	CNI Prednisolone
7	Male	40	Married	High School	Officer	Wilson	2001	Deceased	CNI Prednisolone MMF

IS: Immunosuppressive, CNI: Calcineurin inhibitors, MMF: Mycophenolate mofetil

- Seven adult liver transplant recipients were included in the study.
- Six of the participants had undergone cadaveric transplantation, and one had a living donor.
- One participant was taking one immunosuppressive medication, four were taking two immunosuppressive medications, and two were taking three immunosuppressive medications.

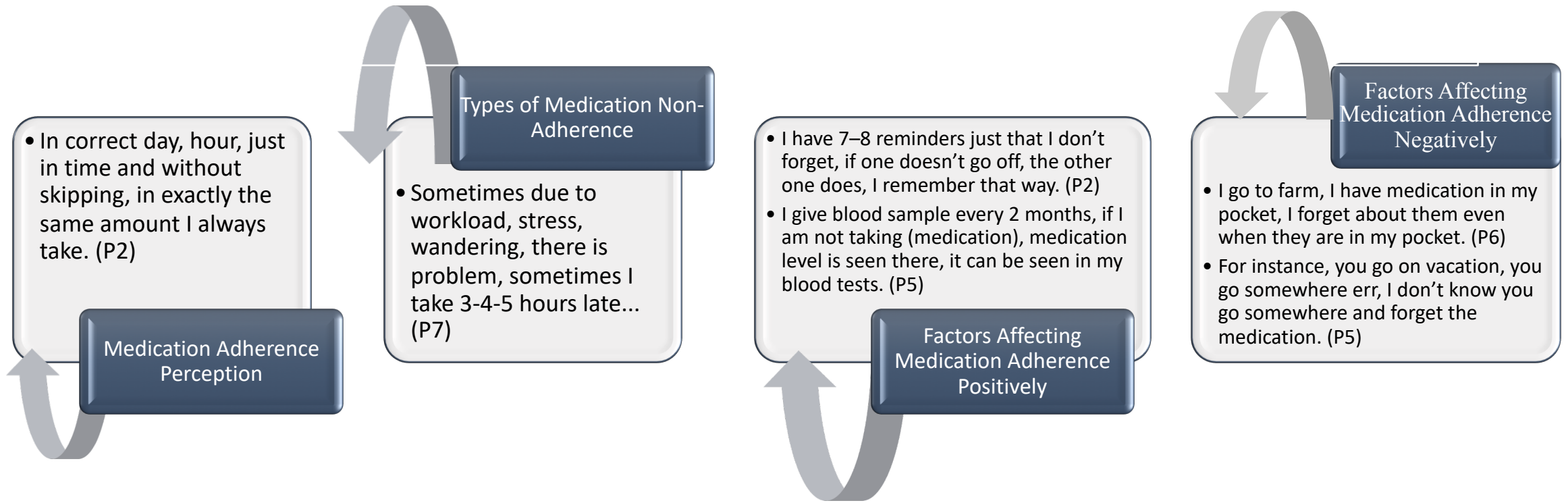
RESULT

Overview of the Study Main Categories, Categories and Sub-Categories		
Main category	Category	Sub-category
Medication adherence perception	Taking medication on time	Taking medication at the same time
		Adjusting medication time according to mealtime
		Taking medication at regular intervals
	Taking medication at the correct dose	Not skipping the doses
		Taking prescribed medication dose
Types of medication non-adherence	Non-adherence to time	Taking medication late
		Taking medication early
	Non-adherence to dose	Skipping medication dose
Factors affecting medication adherence negatively	Patient-related factors	Forgetfulness
		A medication-dependent life
		Exhausted
		Thought of completely healed
		Disbelief in treatment
	Environmental/social factors	Busy work life
		Travelling
		Lack of family support
	Immunosuppressive therapy-related factors	Length of medication use
		Polypharmacy
		Dosing frequency
		Side effects of the medication
		Different forms and sizes of pills
		Flaws in prescribing medication
Factors affecting medication adherence positively	Patient-related factors	Awareness
		Belief
		Reminder use
		Carrying the medication with them all the times
		Keeping medication at frequently visited places
	Environmental/social factors	Family support
		Monitoring drug blood levels
		Easy access to healthcare professionals

Content analysis revealed:

- *four main categories,*
- *nine categories,*
- *31 sub-categories.*

RESULT



Four main categories emerged from the interview data:

- ❖ medication adherence perception
- ❖ types of medication non-adherence
- ❖ factors affecting medication adherence positively
- ❖ factors affecting medication adherence negatively

CONCLUSION

- This study explored that there are several factors affecting immunosuppressive medication adherence among liver transplant recipients, both positively and negatively.
- In order to achieve liver transplant recipients' total adherence to immunosuppressive medication, the factors affecting medication adherence positively and negatively should be understood.
- The study results are expected to contribute developing strategies to improve immunosuppressive medication adherence in liver transplant recipients

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