



## Constructing Instrument of Fathers Support during Pregnancy

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### Abstract

During pregnancy and breastfeeding, first-time mothers experience significant physical and psychological transitions. In these maternal terms, a mother demands a supportive environment to achieve a healthy pregnancy outcome. The perspective of the support recipient, in this case, the mother cannot be quantified quantitatively. It is open to multiple interpretations and is even highly subjective. So there is no appropriate level of consistency as a universal measuring tool. This study is to develop and validate an instrument for assessing Father Support During Pregnancy (FSDP) as seen by the mother by descriptive exploratory design to explore what mothers need from their husbands during pregnancy and breastfeeding. The subjective answer of 616 pregnant mothers in the second and third trimesters in June – December 2020 of four primary health care in Makassar, South Sulawesi, Indonesia. The four factors dimension include; emotional support; instrumental support; informational support; and appraisal support are considered as the model to achieve in this test and then validated using Confirmatory Factor Analysis (CFA). Data were obtained via an online survey several times. This study succeeded in constructing an instrument to measure the function of a husband's social support for his wife during pregnancy. This instrument is considered valid after going through the description and verification stages. However, because this is the first time, it requires a further maturation process, especially for participants with different sociodemographic characteristics, such as the upper-middle class. Several indicators with a loading factor value below 50% need to be considered again to be tested simultaneously on different target participants.

### Introduction

The father's attitude plays a vital role in the mother's behaviors during pregnancy and breastfeeding. Additionally, paternal involvement in child care and development is thought to be associated with healthy and violence-free relationships, particularly among adolescents (Ayu & Triyani, 2020; Opondo et al., 2016). In recent years, there has been increasing study focus on the father's involvement in parenting, childcare, and role equality. During pregnancy and breastfeeding, first-time mothers experience significant physical and psychological transitions. In these maternal terms, a mother demands a supportive environment to achieve a healthy outcome of

pregnancy. A supportive environment derived from the origin of social support theory are having multiple dimensions. The social support theory laid the groundwork for understanding fathers' support in pregnancy. Social support is defined as assistance supplied through social relationships and interactions (Berkman et al., 2000). An earlier study has demonstrated how social support networks, including spouses, friends, and family members, can benefit individuals' health and well-being in a variety of circumstances (Cobo-Rendón et al., 2020; Ozbay et al., 2007; Reblin & Uchino, 2008; Wu et al., 2020). The common phrase for social support refers to one of these three dimensions; (i) social integration, which refers to the

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presence, type, or quantity of social relationships such as marriage; (ii) social network, which refers to the structure of social relationships, including population and density; (iii) social support functions, which include emotional, instrumental, and appraisal functions. Rather than focusing on the two elements of integration and network, we shall concentrate on the social support function. The functional dimension makes a significant contribution to enhancing life quality. Eldredge et.al and earlier scientist has classified social support into four broad categories: emotional support (providing empathy, love, trust, and care), instrumental support (providing practical aid and services), informational support (advice, recommendations), and appraisal (provision of feedback useful for self-re-evaluation and affirmation) (Bartholomew Eldredge LK et al., 2016; Schonfeld, 1991). A mother's husband is one of her closest environments. In addition to supplying basic household necessities, husbands or future fathers are expected to contribute to the parenting effort. This father's responsibility begins with his marriage and intensifies significantly during their wife's first pregnancy (Onyeze-Joe & Godin, 2020).

According to the idea of social support, this concept serves four functions. Support is provided on an emotional, instrumental, informational, and appraisal degree. Emotional support is associated with the promotion of favorable attitudes that give partners a sense of security, comfort, and enjoyment. Studies demonstrate that spouses who provide enough emotional support have a higher rate of marital satisfaction (Jiang et al., 2015). The social support function is commonly utilized in the research of health problems, particularly in investigations of diseases with prolonged incubation and curation periods. Social support theory is also frequently used to examine mental health illnesses such as post-traumatic stress disorder, depression, and suicide (Drysdale et al., 2021; Göbel et al., 2020; Ozbay et al., 2007; Phoosuwan et al., 2020; Wu et al., 2020). A long pregnancy period is also regarded as suitable for the application of this concept. Pregnancy alters women's roles, demanding extremely successful coping mechanisms that are ineffective

when experienced alone. Numerous studies demonstrate that insufficient social support, particularly from partners/husbands, adversely affects pregnancy and childbirth (Anglely et al., 2015; da Costa et al., 2017; Drysdale et al., 2021; Göbel et al., 2020; Greenhill & Vollmer, 2019; Neri Mini et al., 2020; Onyeze-Joe & Godin, 2020; Phoosuwan et al., 2020).

Instrumental support is the provision of concrete requirements, particularly increased needs during pregnancy, such as routine antenatal care, nutrition and supplements, additional maternity clothing, childbirth preparations, and so on. As a provider and protector of the family territory, a husband will perform this duty. The traditional perspective of gender roles in the family sees men as the primary provider of the family, and achieving this role is considered a source of pride compared to other forms of emotional or domestic assistance (John et al., 2017). First-time father typically strive to give the best facilities to be perceived as the responsible one. Emotional support is a verbal and nonverbal process involving husband and wife. It includes showing care and concern for others, delivering reassurance, empathy, comfort, and acceptance. During the first pregnancy, role-switching occurs between the mother and the father (Vismara et al., 2016). Both endure internal changes to become parents. But the woman benefits from neuroendocrine changes that biologically prepare her for the growth and care of the baby (Augustine et al., 2017; Larsen & Grattan, 2012), while the father may experience these sensations after the baby is born (Onyeze-Joe & Godin, 2020). Occasionally, mood swings occur during pregnancy as a result of hormonal changes. Without the ability to articulate their concerns, both sides become more vulnerable. It is admirable that a prospective parent is ready to expand his understanding of pregnancy and infant care. This involvement entails cognitive learning and evolution together, rather than just abdicating responsibility for prenatal care to the mother. As a result, mothers will no longer feel alone in their struggles. Pregnancy classes, prenatal yoga, and parenting classes are options for fathers who are concerned with their spouses (Entsieh & Hallström, 2016).

Additionally, appraisal support is frequently associated with decision-making and role equality within the family. As a result, women have few options when it comes to addressing important subjects with their husbands. Even pregnant women's behaviors are strongly influenced by the persuasive decisions of their spouses. Women-only families are more honest about their plans to have children and their strategies for reversing roles (Duvander et al., 2020).

According to the dimensions of social support theory, particularly the perspective of the support recipient, in this case, the mother, it cannot be quantified quantitatively because it is open to multiple interpretations and is even highly subjective. So there is no appropriate level of consistency as a universal measuring tool. Additionally, social situations are inextricably linked to indigenous culture. Legal marriage and marital success are considered measures of family success in Indonesia. Thus, to minimize measurement bias, it is thought significant to develop measuring equipment capable of determining the degree to which a husband supports his wife during pregnancy and nursing. As such, this study intends to investigate and quantify the husband's social support for the mother and to validate the resultant model of measuring instrument creation based on the consistency of indicators across the four dimensions defined by the social support theory's function approach. Additionally, appraisal support is frequently connected with decision-making and the quality of family roles. Historically, the father or guy in the family has been regarded as the absolute leader and decision-maker, leaving little room for dialogue for women. Even pregnant women's behavior is heavily influenced by their husband's persuasive decisions. Gender-equal households demonstrate more explicit objectives around childbearing and how they approach changing roles collaboratively (Duvander et al., 2020). Therefore, the purpose of this study is to develop and validate an instrument for assessing Father Support During Pregnancy (FSDP) as seen and felt by the mother.

## Method

This research used a descriptive exploratory design to explore what mothers need from their husbands during pregnancy and breastfeeding. The subjective answer from 616 pregnant mothers in the second and third trimesters in June – December 2020 from four primary health care in Makassar, South Sulawesi, Indonesia. The subject enrollment using the cluster method, in addition, to gather more respondents in their trimester period. All of the answers from the open question about what they need from their husband during pregnancy are coded into similar meanings and classified into the dimension targeted instrument. We concluded ten most popular answers represented the four factors dimension, then formed into rating scale questionnaire with options always (5) to never (1) and tested again with the same participant. The four factors dimension include; emotional support; instrumental support; informational support; and appraisal support are considered as the model to achieve in this test. The models are derived from the ideas of the functional dimension of social support proposed by Cohen and Wills in 1985 re-written by (Schonfeld, 1991). The model dimension is tested and validated with Confirmatory Factor Analysis (CFA), and 50 percent (n=308) of participants randomly selected using SPSS 25. The entire research and data-gathering process were supervised by six professionals with an experience in maternity nursing. Data were obtained through an online survey for several times contact if needed. All study procedures were approved by The Makassar Health Polytechnic ethical commission number 00737/KEPK-PTKMKS/X/2020.

## Result And Discussion

After several time participants were contacted by telephone and followed in one online WhatsApp group, there are seven data we excluded due to incomplete information and lost contact (primarily changed phone number), remaining 301 participants as shown in the characteristics below.

Table 1. Study Participants Characteristics

Characteristics	Total (%) n=301
Age (years)	
< 20 / > 35	86 (28,6)
20 – 35	215 (71,4)
Marital Age (years)	
Below 20	269 (89,4)
Above 20	32 (10,6)
Educational Background	
Undergraduates	189 (62,8)
Graduates	112 (37,2)
Occupations	
Household mothers	159 (52,8)
Working mothers	142 (47,2)

According to table 1, among 301 participants, predominantly in the low-risk demographic state, unless the educational background, which is more than half, was undergraduate. It may be a result of early marriage years where still 89,4 percent are

teens couple. The primary healthcare study site is mostly used by the commonly deprived population in the city. While the upper-middle society usually prefers more private clinics or hospitals. This characteristic was found similar in the earlier study (Syam et al., 2020, 2021).

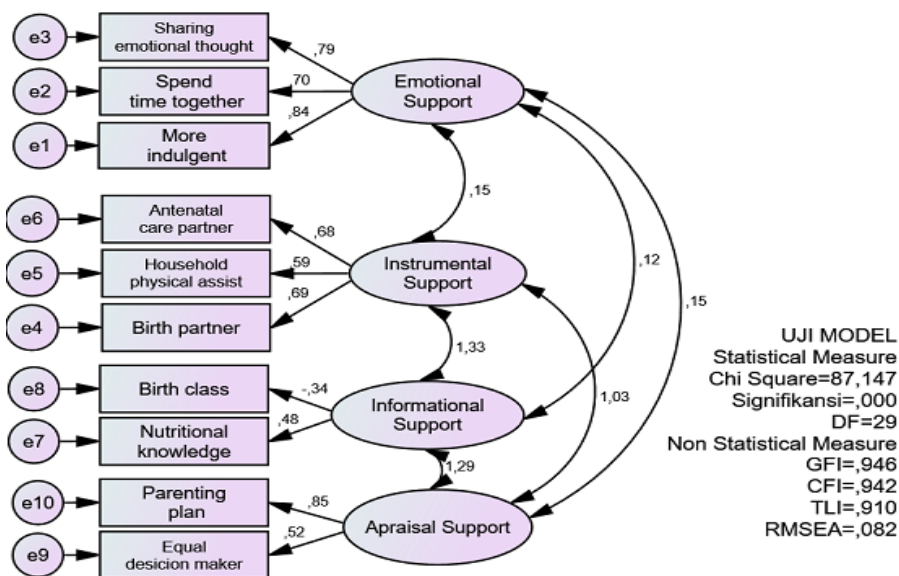


Figure 1. Model CFA of Father Support During Pregnancy

As illustrated in the figure above, the model of father support during pregnancy has a limited statistical measure, with a probability value of 0.001, less than 0.05, and a Chi-Square value of 87.147, which is greater than the table's (17.708). It indicates that the model is still not adequately confirmed by field data, where there is a significant difference between the theory developed in the study and the observed

data. According to the non-statistical measure test, the GFI, CFI, and TLI values are all more than the cut-off of 0.9, and the RMSEA value of 0.08 is within the range of 0.03-0.08. The loading factors for each variable in the model are dominantly greater than 0.7, indicating that this indicator is capable of explaining the observed variable. In other words, the model's convergent validity has been established. Thus,

while statistical measures do not satisfy the assumption of fit, all non-statistical measures do, indicating that this instrument is suitable for use in certain population studies.

Model of Father Support During Pregnancy (FSDP) managed to measure ten indicators with four dimensions of social support function. The first dimension is emotional support, consisting of three items, which include; sharing emotional thoughts, spending more time together, and more indulgent husband. These three items have similar loading values, which are above 70%, meaning that the three positions are very equal in determining the dimensions of emotional support. A pregnant woman, for the first time, needs a lot of attention, especially concerning the abstract dimensions of feelings. A mother hopes that because of her pregnancy, she will be more loved by her husband, will be listened to more, and given more time together because of her success in becoming pregnant. The first experience gave mothers the excessive excitement they hoped their husbands would feel. However, in the context of a role function in a marital relationship (Anglely et al., 2015; Greenhill & Vollmer, 2019; Jiang et al., 2015; John et al., 2017), the emotional role is considered the secondary role of a man. Because the primary role provides for the basic tangible family needs. Such as food, housing, and other physical needs. The second dimension is instrumental support. In the FSDP model, this dimension is made up of three items, namely; antenatal care partner; household physical assistance; and birth partners. These three items have a factor loading value above 50%, meaning that these three items are strong enough to form the dimensions of instrumental support. The most desired by the first pregnant woman is the physical presence of her husband in every moment of pregnancy. Like during antenatal care. At this moment, the father will learn and see the development of the fetus in his wife's womb. It will bring up the sensation of fatherhood as well as the increasingly severe conditions of pregnancy, physically limiting the mother to carry out her obligations as a housewife. So physical assistance from husbands in lightening housework or providing household assistants is considered real instrumental support.

Furthermore, in the upcoming delivery period, the husband is expected to accompany his wife to witness the moment of the struggle to give birth to a baby and see the baby cry for the first time.

The third dimension of the social support function is informational support. Informational support was formed by two items, namely attending the birth preparation course, and understanding the nutritional needs of pregnant women. Although the loading factor values for these two items are quite low, namely 34% and 48%, the results of non-statistical measures indicate that this dimension is important in the model. Both of these informational support mothers expect to come from their husbands as a form of concern for the future of the baby and the health of the mother during her first pregnancy. The husband's involvement in health education has various obstacles from the father's point of view, especially how they are treated in antenatal classes. Most of those who attended the class felt marginalized because the main topic of discussion during the session was practical matters regarding childbirth, so they as men felt that they had no role in the learning effort (Rowe et al., 2013). Mothers also feel that their husbands' non-involvement in pregnancy education classes is the reason for their husbands' reluctance to attend this activity (Murphy Tighe, 2010). Several alternatives have been developed in a holistic approach to childbirth, such as a gentle birth preparation course. This class offers a more comprehensive approach by involving the husband as a birth partner (Doherty et al., 2006). However, the weakness is that this class is carried out by a paid private provider at a cost that is not cheap, so its accessibility is limited to upper-middle class pairs and is also segmented into the highly educated group. However, childbirth education that involves both parents can increase the coping transition in first-time parents and reduce anxiety in the early childhood period (Chhabra et al., 2020; Philpott et al., 2017, 2019; Recto & Champion, 2020; Rominov et al., 2016; Suto et al., 2017). The fourth dimension is the appraisal function. This function is related to the equality of roles in the household, especially decision-making. Two items that make up



the appraisal. They are parenting plans and the equal decision maker with factor loading values of 85% and 52%, respectively. Parenting plans are related to future planning in child care, including how mothers expect fathers to participate in caring for babies, planning parenting patterns, breastfeeding, health care, and child development. Preparation for first-time parents regarding the reality of parenthood is very vital. The information needed is not just positive information, for example, the benefits of breastfeeding, but the difficulties and pains that may be experienced while breastfeeding are tangible. Having a child for the first time is great fun, but the consequences of an untidy night's sleep, increased tension, handling a crying baby, and other harsh realities are realities that can foster empathy from fathers (Gao et al., 2012). An understanding of the realities that will come at the beginning of having a baby will facilitate the transition of brand roles to provide complete support to the mother (Entsieh & Hallström, 2016).

This study succeeded in constructing an instrument to measure the function of a husband's social support for his wife during pregnancy. This instrument is considered valid after going through the description and verification stages. However, because this is the first time, it requires a further maturation process, especially for participants with different sociodemographic characteristics, such as the upper-middle class. Several indicators with a loading factor value below 50% need to be considered again to be tested simultaneously on different target participants.

### Conclusion

Given the critical role and engagement of fathers in child care, mothers' demands must first be met. It is particularly necessary during pregnancy and childbirth to ensure that this is not the mother's only challenge. The father support during pregnancy (FSDP) measurement instrument is highly valid and reliable across all four aspects of the social support function. However, it requires more improvement, particularly in terms of its usefulness for measuring the mutual dimensions across diverse sociodemographic characteristics.

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