STUDY ON THE HEALTH AND SELF-EFFICACY OF PREGNANT WOMEN IN DELIVERY WITH MUSIC ANALGESIA AND LABOR DOULA



ESTUDO SOBRE A SAÚDE E AUTOEFICÁCIA DE GESTANTES NO PARTO COM ANALGESIA INDUZIDA POR MÚSICA E APOIO DE DOULA

EFECTOS DEL PARTO EN LA SALUD Y LA AUTOESTIMA DE LA MUJER EMBARAZADA

Fan Feng¹ (Public health Education)

1. Yantai Nanshan University, Yantai Shandong, 265706, China.

Correspondence:

Yantai Shandong, 265706, China. ryrjuk@163.com

ABSTRACT

To explore the effect of delivery supported by a labor doula combined with music therapy on stabilizing maternal psychology and improving delivery quality, and to find out the predictors of delivery self-efficacy. Statistical processing showed that P<0.05, which was statistically significant. Group was superior in numerical value, followed by the B group. Using the rank sum test, the pain grade of the experimental group was significantly lower than that of the control group, and the difference was statistically significant (P<0.05). T test or χ 2 test showed that the total labor time of the experimental group was shorter than that of the control group. Vaginal delivery rate was higher than that of the control group, and the cesarean section rate was lower than that of the control group, and the difference was statistically significant (P<0.05). Conclusion: Doula delivery combined with music therapy is effective in parturient delivery, which can alleviate parturient pain, speed up labor progress and improve delivery quality, and is worthy of popularization and application. At the same time, increasing pregnant women's understanding of delivery strategies and techniques and improving their psychological state will help improve the level of delivery self-efficacy of pregnant women.

Keywords: Music analgesia; Doula delivery; Self-efficacy.

RESUMO

Explorar o efeito do parto apoiado por doulas combinado com a terapia musical em estabilizar o estado psicológico materno e melhorar a qualidade do parto, e descobrir os indicadores de autoeficácia do parto. O processamento estatístico mostrou que P < 0.05, o que foi estatisticamente significativo. O Grupo foi superior em valor numérico, seguido pelo Grupo B. Por meio do teste da soma dos ranks, o grau de dor do grupo experimental foi significativamente menor do que o do grupo controle, e a diferença foi estatisticamente significativa (P < 0.05). O teste de T ou teste de $\chi 2$ mostrou que o tempo de trabalho de parto total do grupo experimental foi mais curto do que o do grupo controle. A taxa de parto normal foi maior do que a do grupo, e a taxa de cesariana foi menor do que a do grupo controle, e a diferença foi estatisticamente significativa (P < 0.05). Conclusão: O parto feito com doulas combinado com a terapia musical é eficaz para a parturiente, podendo aliviar a dor do parto, acelerar o trabalho de parto e melhorar a qualidade do parto, merecendo maior popularização e aplicação. Ao mesmo tempo, aumentar a compreensão das gestantes sobre estratégias e técnicas de parto e melhorar seu estado psicológico ajudará a melhorar o nível de autoeficácia do parto dessas mulheres.

Descritores: Analgesia induzida por música; parto com doula; autoeficácia.

RESUMEN

Explorar el efecto del parto apoyado por una doula combinado con musicoterapia para estabilizar el estado psicológico materno, mejorar la calidad del parto, y descubrir los predictores de la autoeficacia del mismo. El procesamiento estadístico mostró P <0.05, lo que fue estadísticamente significativo. El grupo fue superior en valor numérico, seguido por el grupo B. Usando la prueba de la suma de rangos, el grado de dolor del grupo experimental fue significativamente más bajo que el del grupo de control, y la diferencia fue estadísticamente significativa (P <0.05). La prueba T o la prueba x 2 mostraron que el tiempo total de trabajo del grupo experimental fue más corto que el del grupo de control. La tasa de parto vaginal fue mayor que la del grupo de control, y la tasa de cesáreas fue menor que la del grupo de control, y la diferencia fue estadísticamente significativa (P <0.05). Conclusión: El parto con doulas combinado con musicoterapia es eficaz, puede aliviar el dolor de las parturientas, acelerar el progreso del parto y mejorar la calidad del mismo, y es digno de popularización y aplicación. Al mismo tiempo, aumentar la comprensión de las mujeres embarazadas sobre las estrategias y técnicas de parto y mejorar su estado psicológico ayudará a mejorar el nivel de autoeficacia del parto de las mujeres embarazadas.



Descriptores: analgésicos musicales; parto inducido; autodestrucción.

INTRODUCTION

Clinically, pain is a physiological reaction that women in vaginal delivery must face, and severe pain can cause a series of stress reactions and even lead to complications. Therefore, clinically, it is necessary to do a good job of labor analgesia, shorten the labor process and improve the maternal delivery outcome. Labor pain will also cause widespread anxiety accompanied by fear, which will slow down the progress of labor and increase the probability of cesarean section.² In addition, the lack of delivery knowledge, delivery skills, parenting knowledge and parenting skills will lead to anxiety and postpartum depression in the delivery process, which is the most common maternal emotional disorder at present. Traditional music delivery is a commonly used method to relieve labor pain in modern clinic, which mainly makes women listen to music and relax tight nerves, so as to achieve the purpose of relieving labor pain. However, the analgesic effect of this method is not good, which makes the parturient still have a higher risk in childbirth. The period from uterine contraction to delivery of fetal placenta is called total labor stage in medicine. Clinically, according to the characteristics of different stages, it is divided into three stages, and each stage is a continuous process, so its nursing interaction is also characterized by continuity and integrity.

In recent years, Doula painless delivery has been gradually applied to labor analgesia. On the basis of epidural anesthesia analgesia, Doula accompanied by Doula can further improve the labor analgesia effect.³ Therefore, the purpose of this study is to analyze the clinical effect of Doula painless labor in clinical labor analgesia. According to Bandura's self-efficacy theory, the fear of childbirth as a physiological emotional response affects the self-efficacy of childbirth. Pregnant women with anxiety and fear will regard childbirth as a difficult task and doubt their ability to cope with natural childbirth. And try to investigate the correlation between the demographic characteristics, mental health and delivery self-efficacy of pregnant women, and find out the important predictors of delivery self-efficacy, so as to provide theoretical reference for clinical workers to carry out targeted prenatal intervention.

Study on health and self-efficacy of pregnant women

Maternal demands for comfort during childbirth are gradually increasing, and labor pain is still one of the most important factors affecting vaginal delivery. Studies have shown that maternal psychological state is an important factor affecting the smooth development of vaginal delivery, and maternal psychological state is closely related to labor pain. Traditional labor analgesia mainly adopts epidural labor analgesia, which has fast anesthetic effect and ideal analgesic effect. However, studies have shown that the type and concentration control of local anesthetics can directly affect the labor process of parturient. The results are close to those of Hallal et al., indicating that labor pain is a serious and widespread pain. The total time of labor was 601.03 194.65 minutes, which was within the normal range. Delivery will cause strong and lasting stimulation to parturient. How to effectively shorten the labor process and relieve the pain of parturient is an important research content in obstetrics medicine. Using D-T pulse wave to gently stimulate the mother to start her own analgesia system not only blocks the pain transmission but also closes the pain gate, so it can improve the pain threshold intensity of the parturient and relieve the pain. Doula delivery is a kind of supportive treatment method which has been widely used in recent years. It refers to a woman who has given birth experience to give psychological support, guidance, spiritual comfort and encouragement to her mother before and after delivery, so as to promote her to successfully complete delivery.

Self-efficacy is an individual's ability to judge a certain behavior or task. Women's physiological functions, energy, pain tolerance and

other aspects have declined, which leads to the lack of confidence in natural childbirth and low self-efficacy, which directly affects the choice of delivery mode.⁴ The implementation of Doula delivery can reduce the catecholamine level and increase the secretion of norepinephrine, thus promoting uterine contraction and ensuring the smooth delivery of parturient. By acting on the skin surface of the peripheral nerve of hand and the root nerve of lumbosacral spinal cord, Doula instrument activates its own analgesia system, and maximally promotes the continuous synthesis and release of its own central analgesic transmitter--endogenous opioid peptide. Thereby stimulating various systems of the puerpera, resulting in excessive secretion of adrenaline, unstable contractions, decreased placental blood flow, increased blood pressure, accelerated heartbeat and increased blood oxygen consumption, thus leading to neonatal hypoxia and easy to cause intrauterine respiratory distress. By comparison, the active period and total labor time of the experimental group are less than those of the control group, and the amount of bleeding during delivery and 2 hours after delivery are less than those of the control group. Therefore, it can be concluded that using music guide to relieve pain shortens the labor time; Because of the midwife's companionship, communication and support, the anxiety, fear and other bad emotions brought by childbirth pain were alleviated. Therefore, depression, anxiety and other unhealthy psychological and emotional states may be used as information sources to reduce the level of delivery self-efficacy of pregnant women.

The results show that there is a negative correlation between childbirth fear and childbirth self-efficacy. It is consistent with the research results of Bratman et al. 2015.⁵ Severe fear of childbirth can reduce the level of self-efficacy in childbirth, which leads pregnant women to choose cesarean section to end their pregnancy.⁶ Ram et al. 2019 studied and analyzed the abnormal psychological state of pregnant women such as terror and anxiety, which may be related to the incompatibility of pregnant women with some physiological and psychological changes brought about by pregnancy, and may also be related to their lack of understanding of the delivery process and excessive concern about fetal health. Terror has a negative predictive effect on pregnant women's delivery self-efficacy, while understanding of delivery coping strategies and techniques has a positive predictive effect on pregnant women's delivery self-efficacy. Yang 2017 et al studied the relationship between labor self-efficacy and labor pain, and found that labor self-efficacy has different effects on different dimensions of labor pain.

The grade of labor pain and the time of labor are related to age. The older the age, the lower the pain level. The older you are, the shorter the labor time. Incomplete pelvic development of younger women leads to prolonged labor and dystocia; As we all know, Doula painless delivery, as a professional and humanized delivery nursing intervention, is beneficial to block the nerve conduction pathway of pain, improve the analgesic effect of epidural block anesthesia, and make the parturient give birth more comfortably and naturally. Researchers believe that this discovery is very important because it shows that women experience similar pain during childbirth, however, women with high self-efficacy experience pain differently. It may be related to the fact that pregnant women don't know the related knowledge of childbirth, so they are not sure whether they can relieve pain through their own efforts, or it may be related to the fact that pregnant women want to better promote the smooth delivery through some pain relief methods. In addition, it is also possible to reduce the level of pregnant women's fear of giving birth and improve their confidence in giving birth through the group exchange method of sharing their experiences. In this study, the above two midwifery

techniques were applied to parturient women, and their effects on maternal self-efficacy and delivery quality were observed. The results showed that the scores and total scores of CBSEl-C32 scale in the experimental group were significantly higher than those in the control group and at admission, and the difference was statistically significant (P < 0.05). The vaginal delivery rate in the experimental group was significantly higher than that in the control group (P<0.05). However, the implementation of Doula delivery combined with music therapy during parturition puts forward higher requirements for nurses' professional skills, communication skills and emergency handling ability. In the future nursing management and daily nursing work, we should pay attention to the detailed introduction and explanation of maternal breastfeeding, newborn rearing methods and medication, including puerperal hygiene, diet, rehabilitation exercise, contraceptive guidance and neonatal preventive health care.

CONCLUSIONS

Clinical workers and maternal families can take appropriate intervention measures to improve maternal understanding of delivery coping strategies and techniques, and alleviate maternal psychological conditions. Therefore, it is necessary for clinical medical staff to clarify the influencing factors of pregnant women's mental health and take effective improvement measures to improve the unhealthy psychological state of pregnant women, so as to improve the self-efficacy of childbirth and promote the smooth delivery. The effect of doula delivery combined with music therapy is ideal, which can alleviate the pain of parturient, accelerate the progress of labor and improve the quality of delivery, and is worthy of popularization and application.

The author declare no potential conflict of interest related to this article

AUTHORS' CONTRIBUTIONS: The author has completed the writing of the article or the critical review of its knowledge content. This paper can be used as the final draft of the manuscript. Every author has made an important contribution to this manuscript. Fan Feng: writing and execution.

REFERENCES

- Kunrong C, Lingmei W. Study on the effect of Doula companionship and labor analgesia on labor quality. Laboratory Medicine and Clinical Medicine. 2015; 000(012):1705-1706.
- Handschin C, Spiegelman BM. The role of exercise and PGC1alpha in inflammation and chronic disease. Nature. 2008; 454(7203):463-9.
- Kpéa L, Bonnet MP, Ray CL, <u>Prunet C, Ducloy-Bouthors AS</u>, <u>Blondel B</u>. Initial Preference for Labor Without Neuraxial Analgesia and Actual Use. Anesthesia & Analgesia. 2015; 121(3):759-766.
- ${\bf 4.} \ \ {\bf Ge\,L, Xiuhong\,C, Yuxin\,Z.\,Observation\,on\,the\,application\,effect\,of\,Doula\,analgesic\,instrument\,in}$
- natural delivery. China Emergency Medicine. 2018; 38(0z1):210.
- Bratman GN, Hamilton JP, Hahn KS, Daily GC, Gross JJ. Nature experience reduces rumination and subgenual prefrontal cortex activation. Proc Natl Acad Sci U S A. 2015; 112(28):8567-72.
- Ram H, Dastager SG. Re-purposing is needed for beneficial bugs, not for the drugs. Int Microbiol. 2019; 22(1):1-6.
- Bassit RA, Sawada LA, Bacurau RF, Navarro F, Costa Rosa LF. The effect of BCAA supplementation upon the immune response of triathletes. Med Sci Sports Exerc. 2000; 32(7):1214-9.