

## EFFECT OF THE SPIRITIST “PASSE” (SPIRITUAL HEALING) ON THE HEMATOLOGICAL RESPONSE AND COMPLICATIONS OF HOSPITALIZED NEWBORNS: A RANDOMIZED CLINICAL TRIAL

## EFEITOS DO PASSE ESPÍRITA SOBRE A RESPOSTA HEMATOLÓGICA E COMPLICAÇÕES DE RECÉM-NASCIDOS HOSPITALIZADOS: ENSAIO CLÍNICO RANDOMIZADO

## EFFECTOS DEL PASE ESPÍRITA SOBRE LA RESPUESTA HEMATOLÓGICA Y COMPLICACIONES DE LOS RECIÉN NACIDOS INTERNADOS: ENSAYO CLÍNICO RANDOMIZADO

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### ABSTRACT

**Objective:** To evaluate the hematological response and complications during hospitalization of newborns who were submitted to a Spiritist “passe” and laying on of hands aiming the healing. **Method:** Randomized clinical trial, double blind. 24 newborns were randomly. The experimental group was submitted to a Spiritist “passe” for three consecutive days, 10 minutes a day. The control group was submitted to a curative laying on of hands with the same duration. The results were evaluated using a complete blood count collected before and after the interventions, and detecting the number of complications during hospitalization. **Results:** The newborns who were submitted to Spiritist “passe” showed a smaller decrease of their microhematocrit, hemoglobin and neutrophils level, an increase of their total values and percentage of lymphocyte and platelets ( $p < 0,05$ ). Concerning complications during hospitalization, in the control group 30,7% used antibiotics and 15,4% vasoactive drugs compared to only 18,2% of antibiotic use in the group exposed to Spiritist “passe”. **Conclusions:** Increased immunity, based on increased lymphocyte count, and lower incidence of complications during the hospitalization period were observed in newborns exposed to Spiritist “passe” compared to imposing hands with intent to cure.

**Descriptors:** spiritual healing, therapeutic touch, newborn

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## RESUMO

**Objetivo:** Avaliar a resposta hematológica e complicações no período de hospitalização de recém-nascidos submetidos ao passe espírita e à imposição de mãos com intenção de cura. **Método:** Ensaio clínico randomizado, duplo cego. 24 recém-nascidos foram aleatoriamente designados para o grupo experimental, que recebeu passe espírita durante 10 minutos, três dias consecutivos, e grupo controle que recebeu imposição de mãos com intenção de cura, de duração igual. Os resultados foram avaliados por meio de hemograma antes e após as intervenções e complicações durante a internação hospitalar. **Resultados:** Nos recém-nascidos do grupo passe espírita houve diferenças significativamente menores na dosagem de eritrócitos totais, hemoglobina e níveis de neutrófilos, maiores nos valores totais e percentagem de linfócitos e nos escores de plaquetas ( $p < 0,05$ ). Referente às complicações, no controle 30,7% utilizaram antibiótico e 15,4% drogas vasoativas comparado com apenas 18,2% uso de antibióticos no grupo exposto ao passe espírita. **Conclusões:** Maior imunidade, baseado no aumento da contagem de linfócitos, e menor incidência de complicações no período de hospitalização foram observadas em recém-nascidos expostos ao passe espírita comparados à imposição de mãos com intenção de cura.

**Descritores:** terapias espirituais, toque terapêutico, recém-nascido

## RESUMEN

**Objetivo:** Evaluar la respuesta hematológica y las complicaciones durante la internación hospitalaria de los recién nacidos sometidos a pase espírita y la imposición de manos con intención de curar. **Métodos:** Ensayo clínico aleatorizado, doble ciego. 24 recién nacidos fueron asignados aleatoriamente al grupo experimental, que recibió pase espírita durante 10 minutos, três días consecutivos y el grupo control que recibió la imposición de manos con la intención de curar, con la misma duración. Los resultados se evaluaron mediante hemograma antes y después de las intervenciones y complicaciones durante la internación hospitalaria. **Resultados:** Se encontró en el grupo experimental diferencias significativamente menores en eritrocitos totales, la hemoglobina y neutrófilos y mayores en los valores totales y en las porcentaje de linfocitos entre grupos y plaquetas ( $p < 0,05$ ). En el grupo control 30,7% utilizaron antibiótico y 15,4% drogas vasoactivas comparado con apenas 18,2% uso de antibióticos en el grupo expuesto al pase espírita. **Conclusiones:** Mayor inmunidad, basada en el aumento del recuento de linfocitos, y menor incidencia de complicaciones en el período de hospitalización fueron observadas en recién nacidos expuestos al pase espírita comparados a la imposición de manos con intención de curación.

**Descriptor:** terapias espirituales, tacto terapéutico, recién nacido

## INTRODUCTION

A newborn (NB) in a hospital environment is exposed to unpleasant stimuli such as noise, intense light, and

invasive and clinical procedures that are constant, resulting in a certain level of stress and pain.<sup>1,2</sup> These facts make it difficult for the developing brain to

organize itself, which can cause morbidities that interfere with the life of the infants and their families.<sup>3</sup>

Aiming to provide holistic care, alternative and complementary therapies (ACTs) have been used in several clinical situations to reduce the harmful effects caused by hospitalization.<sup>4-6</sup> The use of these therapies has been increasing worldwide since the second half of the 1970s.<sup>7,8</sup>

The inclusion of these alternative therapies into health services has been considered at the national level and culminated with the approval of Decree n. 971 of the Ministry of Health in 2006 and n. 145 in 2017, which implement a National Policy of Integrative and Complementary Practices.<sup>9,10</sup>

Among the complementary medical practices employed for the treatment of several diseases are the biofield therapies (energy therapies)<sup>11</sup>, defined as types of treatment that aim to affect the energy fields that surround and interpenetrate the human body. These therapies involve the placement of hands through biofields, of which existence have not yet been scientifically proven, promoting changes in physical health. In Brazil, the Spiritist “passe”, or laying on of hands, has been one of the most widely used energy therapies.<sup>12</sup>

Compared to a blood transfusion, which represents a renewal of physical forces with organic resources taken from a limited reservoir, the Spiritist “passe” is considered a transfusion of psychic energies taken from the unlimited reservoir of spiritual forces.<sup>12</sup> Recent studies have shown that the Spiritist “passe” inhibits bacterial culture growth<sup>13</sup>, reduces anxiety levels<sup>5,6,14</sup>, depression<sup>5</sup>, and muscle tension<sup>5,6</sup>, in addition to increasing well-being<sup>5,6</sup> and improving the quality of life of adults.<sup>14</sup> However, there is a lack of studies evaluating the effects of this complementary therapy in newborns (NBs) and children. In this study, the hypothesis was that the Spiritist “passe” would be more effective than the laying on of hands with a healing intent (LHHI) in improving the hematological response and reducing complications during the hospitalization period in hospitalized NBs.

The aim of this study was to evaluate the hematologic response and complications during the hospitalization period in newborns submitted to the Spiritist “passe” and the LHHI.

## **METHOD**

A double-blind, randomized clinical trial was performed at Clinical Hospital of Federal University of Triângulo Mineiro (HC/UFTM) after

approval by the institution's Ethics Committee on Research in Human Subjects. This study is part of the research under protocol number 712466. After the parents of the NBs signed the Free and Informed Consent Form, the following data were obtained for each subject: gender, height, birth weight, gestational age (GA), APGAR index score in the 1<sup>st</sup> and 5<sup>th</sup> minutes, clinical diagnosis, date of admission to the unit and age at study enrollment.

NBs admitted at the Intermediate Care Unit - Nursery that were clinically stable, i.e., breathing without the aid of devices, respiratory rhythm without apnea, mean arterial pressure (MAP)  $\geq$  gestational age in weeks, gestational age between 30 and 37 weeks, birth weight  $>1,500$  g, length of hospital stay in the nursery between 2 and 14 days and blood counts with no discrepant results were included in the study. The exclusion criteria were NBs under mechanical ventilation, presence of oral lesions, use of vasoactive drugs (dopamine, dobutamine and noradrenaline), diagnosis of anemia and sepsis.

Of the NBs included in the study, 13 were randomly allocated in the control group (CG) and 11 in the experimental group (EG). In the CG, the employees of Clinical Hospital were asked to lay their

hands on the NBs and send sincere wishes for improvement, through their thoughts, to the patient with an intent to heal (a kind of "non-spiritual" laying on of hands therapy, similar to the Spiritist "passe").

The NBs included in the EG were submitted to the laying on of hands together with the Spiritist "passe". The employees and Spiritist healers were asked to position themselves in front of the incubator, to place the hands on the patient, at a distance of approximately 10 to 15 cm, for 10 minutes, on 3 consecutive days. The interventions were watched by a researcher and performed at the same time.

The Spiritist healers underwent preparation courses that include the training to apply "passes" for the purpose of healing the individual, through theoretical and practical classes. Inclusion criteria for Spiritist healers were 18 years of age or older and having had experience for more than 2 years. Inclusion criteria for the employees were age  $\geq 18$  years and not being a Spiritist healer.

For the randomization process, the NBs were consecutively numbered, and a computer program was used, which generated a sequence of random numbers. The first number of the random sequence was included in the CG and, subsequently, the second number was included in the EG and so on.

Hemograms were evaluated before the study (baseline) and after the third intervention day (D3). The NBs were positioned in dorsal decubitus for peripheral blood collection. The blood count analysis was performed using an automated XPS-2000i SYSMEX cytometer. The evaluated parameters were: total erythrocytes; hemoglobin; total leukocytes, leukocyte differential count and platelets.

As for the incidence of complications in newborns during the hospitalization period after the study interventions, the use of antibiotics and vasoactive drugs (noradrenaline, dopamine and dobutamine) were obtained from the medical records.

The demographic data of the groups were compared using the Mann-Whitney test (categorical variables). For the analysis of data obtained at different times (before and after the interventions), parametric tests were used for repeated measurements of Student's *t*-test or ANOVA, followed by Tukey's test or non-parametric Wilcoxon or Friedman's ANOVA tests, followed by the non-parametric minimum significant difference (MSD) test. The proportions difference test was used for comparisons between categorical variables. Spearman's correlation coefficient was used to analyze

the magnitude and direction of the association between complications and length of hospital stay. The data were analyzed using the software SPSS v21 and Prisma v6.0, and the significance level was set at 5%.

## RESULTS

Of the total of 38 parents invited to participate in the study, four (10.5%) refused and 8 NBs did not meet the inclusion criteria, 2 in the Spiritist "passe" group were discharged on the second day and did not complete the study. Of the 24 parents who agreed to the participation of their newborns in the study, 50% were Catholics, 25% reported having no religion, 16.7% declared they were Evangelicals and 8.3% were Spiritists. Maternal mean age was 25.54 (ranging from 15 to 43 years of age).

The characteristics of the NBs in the study groups were similar ( $p > 0.05$ ) as shown in table 1. Regarding the APGAR index at the 1<sup>st</sup> minute, it was  $7.25 \pm 2.41$  in the CG and  $7.82 \pm 1.88$  in the EG, whereas at the APGAR index at 5<sup>th</sup> minute was  $8.33 \pm 1.07$  and  $8.64 \pm 0.92$ , in the control and Spiritist "passe" groups, respectively. The mean days of hospital admission in the study were  $5.75 \pm 2.52$  in the CG and  $5.55 \pm 2.84$  in the EG.

**Table 1** – Characterization of the newborns in the study groups. Uberaba, 2017.

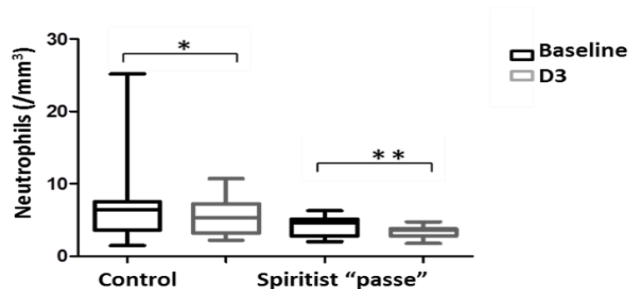
Variable	Control		Spiritist “passe”		p value
	n	%	n	%	
<b>Gender (M/F)</b>	4/9		5/6		0.375 <sup>¥</sup>
<b>Weight (Kg)</b>	1.94 ± 0.33		2.44 ± 0.66		0.072 <sup>§</sup>
<b>Gestational Age (Weeks)</b>	34.3 ± 1.86		34.7 ± 1.90		0.608 <sup>§</sup>
<b>Ethnicity</b>					
Caucasian	8	61.5	7	63.6	0.625 <sup>¥</sup>
Non-Caucasian	5	38.5	4	36.4	
<b>Diagnosis</b>					
Low weight	11	84.6	7	63.6	0.239 <sup>¥</sup>
Metabolic disorder	5	38.5	4	36.4	0.625 <sup>¥</sup>
Respiratory disorder	10	76.9	9	81.8	0.585 <sup>¥</sup>

<sup>̄</sup>Mean ± Standard deviation; <sup>§</sup>Mann Whitney Test; <sup>¥</sup>Fisher’s Exact Test

Regarding the erythrocyte parameters, a significant reduction was observed in total erythrocyte ( $p < 0.05$ ) and hemoglobin ( $p < 0.05$ ) levels of the NBs submitted to the Spiritist “passe” when comparing the periods prior to the beginning of the study and after 3 days of intervention ( $p < 0.05$ ), with no significant difference between the study groups.

In reference of the leukogram analysis, a significant reduction in neutrophil counts was observed in the CG ( $p < 0.05$ ) and EG ( $p < 0.05$ ) between the baseline and D3 samples. However, the greatest significant difference was detected in the NBs exposed to the Spiritist “passe” ( $p < 0.05$ ) (Chart 1).

**Chart 1** – Neutrophil level measurements ( $/\text{mm}^3$ ), in a comparison between the control (NBs exposed to the laying on of hands with healing intent) and the experimental group (NBs that received the Spiritist “passe”) before the beginning of the study (Baseline) and after the third day of intervention (D3).



Baseline, before the start of interventions; D3, 3<sup>rd</sup> day after the interventions. The horizontal lines represent the medians, the bars represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles and the vertical lines the minimum and maximum values. \*  $p < 0.05$ .

An increase in absolute values ( $p < 0.05$ ) and percentage of lymphocytes ( $p < 0.05$ ) was observed in the NBs who received the Spiritist "passe" between the baseline and D3 periods (Chart 2).

In our study, there was no statistically significant difference for total leukocyte and monocyte counts between the study groups.

**Chart 2** – Lymphocyte absolute values were compared between the control (NBs exposed to the laying on of hands with healing intention) and the experimental group (NBs who received the Spiritist "passe") before the beginning of the study (Baseline) and after the third day of intervention (D3).

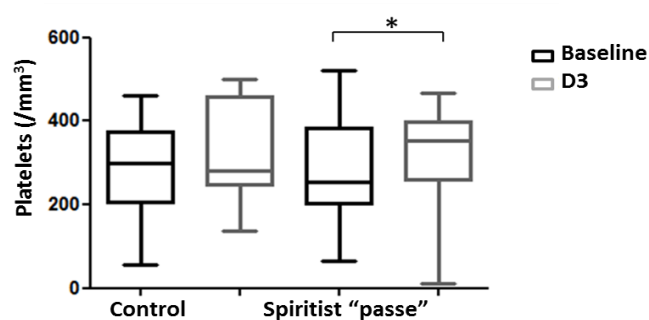


Baseline, before the start of interventions; D3, 3<sup>rd</sup> day after the interventions. The horizontal lines represent the medians, the bars represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles and the vertical lines the minimum and maximum values. \*  $p < 0.05$ .

Platelet count scores were significantly higher in the NBs exposed to the Spiritist "passe" between the beginning

of the study and after 3 days ( $p < 0.05$ ), as shown in Chart 3.

**Chart 3** – Platelet counts, in a comparison between the control (NBs exposed to the laying on of hands with healing intent) and experimental group (NBs who received the Spiritist "passe"), before the beginning of the study (Baseline) and after the 3<sup>rd</sup> day of intervention (D3).



Baseline, before the start of interventions; D3, 3<sup>rd</sup> day after the interventions. The horizontal lines represent the medians, the bars represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles and the vertical lines the minimum and maximum values. \*  $p < 0.05$ .

Regarding the incidence of complications, the CG had six cases (46.1%) when compared to only 2 cases (18.2%) in the group exposed to the

Spiritist "passe". Table 2 shows the frequency and percentage of complications in the NBs included in the study.

**Table 2** – Frequency and percentage of complications during the hospitalization period of the NBs included in the study groups. Uberaba, 2017.

Variable	Category	Control		Spiritist "passe"		p value
		n	%	n	%	
Complication	Antibiotic use	4	30.7	2	18.2	0.395 <sup>‡</sup>
	Vasoactive drug use	2	15.4	0	0	0.276 <sup>‡</sup>
<b>Total</b>		6		2		

<sup>‡</sup> Fisher's Exact test.

A moderate positive linear correlation ( $r = 0.532$ ,  $p < 0.05$ ) was found between the number of complications and the newborns' hospital length of stay, showing that the higher the number of complications, the longer the hospital length of stay.

## DISCUSSION

In the present study, 89.5% of the

invited parents accepted the complementary therapy with the Spiritist "passe". A recent study<sup>8</sup> investigated the parents' beliefs and the use of spiritual methods in the treatment of children admitted to a hospital in Pakistan and reported that parents themselves employ several spiritual methods in 55% of children. Moreover, most people believe that complementary Medicine through the



laying on of hands has a positive influence on health without interfering with the allopathic treatment.

In our study, significant differences were observed in NBs that received the Spiritist “passe” regarding the values of total erythrocytes, hemoglobin, neutrophils, lymphocytes and platelets, although all were within the reference values, and in the number of complications during the hospitalization period when compared to the LHHL. We found in the literature some studies that investigated in human subjects the physiological alterations resulting from treatments through different practices of laying on of hands that suggest, among other effects, changes in hemoglobin concentrations, hematocrit levels and immunological system improvement.<sup>15,16</sup> An adaptive immune response depends on the activation of specialized cells, the lymphocytes, and the soluble molecules produced by them. The main cells involved in the acquired immune response are lymphocytes.<sup>17</sup>

Regarding complications, the use of antibiotics in the present study was found to be two-fold higher in the CG when compared to the group that received the Spiritist “passe” and the frequency of vasoactive drug use occurred only in participants exposed to the laying on of

hands with a healing intent. A study based on the use of the therapeutic touch (TT) in preterm newborns corroborates our findings.<sup>18</sup>

The present study showed that the reduction in the number of complications is related to a shorter hospital length of stay. The impact is also economically-related, as this complementary practice is free of costs and its benefits can result in lower hospital expenses, fewer drugs and diagnostic tests.

One study evaluated the good intents, bad intents and the Spiritist “passe” and the authors found that bacterial growth inhibition was maintained for a week only after the “passe” intervention, suggesting that only the intention was not able to affect the bacteria in the same way.<sup>13</sup>

In recent studies, the authors found considerable reduction in muscle tension, anxiety, depression, and elevated well-being in hospitalized adults who received the Spiritist “passe”.<sup>5,6</sup>

The Spiritist “passe” is widely available and used; however, its biological and psychological mechanisms on the human organism is a scarcely studied topic in the medical literature. Hodges and Scofield<sup>19</sup> report that ‘the healer’s goal is to channel the energy, termed the “source” higher to the patient, promoting increased energy levels and flow and restoring

balance; secondly, it activates the natural forces of healing and returns to normality.’ In the Spiritist therapy, this treatment uses the spiritual fluids, which constitute one of the states of the universal cosmic fluid.

This fluidic matter produces a similar effect to that of the medicinal resource with a particularity (due to the greater depth of penetration given the tenuity of its constituents), that is, to act directly on the primary body molecules. Therefore, the Spiritist “passe”, considered a transfusion of energy that alters the cellular field, can bring benefits in the physical health based on the absorption of these fluids, which will be retained in blood promoting the regulation of cell movements and functions, correcting eventual abnormal activities, favoring the reestablishment of the cellular physiological balance.<sup>20</sup>

A study limitation is related to the number of applications of the Spiritist “passe”, although the blood count assessment was performed before and after the procedures, in addition to the lack of the study of lymphocyte subpopulations. Our results should be interpreted with caution, as a larger sample may produce other statistical differences from the present study. Future studies with larger sample sizes should include a longer time of application of this intervention,

exploring complications, hospital length of stay, nature and the physiological basis of the biofield healing, as well as other markers of immunological response.

## CONCLUSION

Increased immunity, based on increased lymphocyte count, and lower incidence of complications during the hospitalization period were observed in newborns exposed to Spiritist “passe” compared to imposing hands with intent to cure.

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