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## Use of a children information booklet to support young relatives visiting a critically ill adult: impact on ICU practices

### Introduction

According to the 2009 SFAR/SRLF guidelines for improving hospital conditions in ICU, the admission of children who wish to visit a critically ill relative "should be facilitated and supervised" by ICU staff members. Yet, the difficulties faced by caregivers in this challenging setting potentially induce restrictions in children visits. The objective of this work was to evaluate the impact on ICU staff practices of a specifically designed children information booklet.

### Material and Methods

The booklet was designed by a multidisciplinary team (nurses, intensivists, psychiatrists, cartoonist) and included both child-centered explanations (5 to 12 years old), and advices for accompanying adults. During the study period, booklets were provided freely to patients' relatives and ICU staff members as a practical tool to help accompanying children who were likely to visit a patient. We used a prospective before-after study design with a questionnaire at baseline and 1 year post-intervention to assess the impact of the booklet on practices in ICU staff members (nurses, auxiliary nurses and physicians). The participants were split into an intervention centre (booklet available) and a control centre (booklet not available). Both centres were general ICUs and were part of a same university hospital. These ICUs were comparable regarding the nurse-to-patient ratio, the number of visiting hours and the admission policy for family visits. Primary endpoints were the proportion of participants who supported visiting children over the three months prior to the questionnaire, and the Moral Distress Scale Revised (MDS-R) to evaluate the emotional experience of staff members in this setting.

### Results

Fifty-seven booklets were distributed in the intervention ICU (8% of admitted patients). During the study period (07/2014 to 07/2015), 93 children were likely to visit their relative. A total of 195 staff members participated in the study (75% of ICU staff). They were nurses, auxiliary nurses and physicians in 56%, 27% and 14% of cases respectively. Participants were equally recruited at the intervention ICU (87 participants, 74% of ICU staff) and the control ICU (108 participants, 76% of ICU staff). In the intervention ICU, the proportion of staff members who supported at least one visiting child over the three months prior to the questionnaire increased from 41% before the intervention to 69% after the intervention ( $p < 0.001$ ), whereas it was not significantly different in the control ICU (38% vs 39%,  $p = 0.97$ ). A multivariate analysis confirmed that the use of the booklet was an independent factor for increasing the rate of caregivers who supported visiting children (OR=4.0, 95%CI=[2.0;7.9],  $p < 0.001$ ). No significant effect of occupation (OR=0.9,  $p = 0.89$ ), age (OR=1.7,  $p = 0.15$ ) and years of experience in critical care (OR=0.7,  $p = 0.34$ ) emerged from this analysis. In the intervention ICU, the proportion of participants who disagreed with child visits decreased from 35% to 14% ( $p = 0.002$ ), whereas it remained stable in the control ICU (30% vs 34%,  $p = 0.51$ ). In the intervention ICU, the proportion of participants who claimed that the admission policy for child visits had to be improved decreased from 94% to 76% ( $p = 0.001$ ), whereas it remained stable in the control ICU (91% vs 91%,  $p = 0.94$ ). There were no significant differences in MDS-R before and after the intervention both in the intervention ICU (21 [12;30] vs 20 [9;30],  $p = 0.44$ ) and the control ICU (18 [10;29] vs 21 [8;33],  $p = 0.13$ ).

### Conclusion

We reported a substantial increase in visiting children admission in ICU when a specifically designed children information booklet was available. Despite the fact that no emotional effect was identified, the implementation of booklets seemed useful to standardize practices regarding child visits policy among staff members. Further work would be necessary to assess the utility of the booklet regarding children experience during their visit in the ICU.