

Physiotherapy of hemophilia in Japan; a survey for physical therapist

Akiko Shimokawa 1)2), Akemi Hokama 2), Akira Shirahata 2), Atsushi Nakata 2), Emi Inakazu 2), Kenichiro Makino 2), Hideo Shitama 2), Hideyuki Takedani 2), Hitoshi Nakai 2), Manabu Nishino 2), Masahiro Ishiyama 2), Minoru Kubota 2), Miwa Goto 2), Saburo Ohmine 2), Satoko Orita 2), Satoshi Mabuchi 2), Satoshi Higasa 2), Tomohiko Murakami 2), Tomotaka Manabe 2), Toshiaki Tsukamoto 2), Yoshihiro Ito 2)

1) Tsuruga Medical Center, National Hospital Organization, 2) Japanese Hemophilia Physical Therapy Society

Introduction and Objective:

Physiotherapy (PT) is one of the most important treatments for patients with hemophilia (PWH), however many PWHs can not received PT in Japan. As a major reason, physiotherapists lack the knowledges about hemophilia and are afraid of bleeding after PT. Therefore we established Japanese Hemophilia Physical Therapy Society (JHPTS) in 2008 to introduce and show our experiences of PT for PWH and PT will be common therapy for PWH. In this study, we surveyed PT situation for hemophilia in Japan using questionnaire and knowledge test.

Method:

- Institutes: 144 institutes were included in where PWH were treated with concentrates.
- Questionnaire
 - Total 15 questions were included.
 - Contents
 - Q01~Q06: General status of physiotherapist (institute size, location and experience of physical therapy for PWH)
 - Q07~Q14: Status of PT for PWH were asked physiotherapists in PT group
 - Q15: The reasons why did not PT for PWH was asked physiotherapists in non-PT group
- Knowledge test
 - Total 13 questions were included. Questionnaires of all asked status answered all of physiotherapists.
 - Contents (asked about)
 - Q1~Q3: hemophilia, Q4~Q6: blood examination, Q7~Q11: hemostatic control, and Q12~13: physiotherapy.
 - Analysis: A correct answer rate compared between PT group and non-PT group using Pearson's Chi-squared test.

Results:

- ### <Questionnaire>
- The collect rate of questionnaire was 45% (65/144 institutes) and PT group was 16 and non-PT group was 49.
 - There were 16 PT group every part of the country. **(Fig 1)**
 - Many physiotherapists did not know about JHPTS and the meeting of JHPTS. **(Fig 2 and 3)**
 - Majority of doctors who request PT for PWH was internal medicine. **(Fig 4)**
 - The aim of physiotherapy prescriptions were to improve function joint and guide how to home exercise. **(Fig 5)**
 - Physiotherapist thought that Hemostatic control is the most important factor to do physiotherapy for PWH. **(Fig 6)**
 - Many PWH improved function joint and walking after PT. **(Fig 7)**
 - PT group could prepared to do maintenance at the bleeding on PT for PWH. **(Fig 8)**
 - The main reason why not prescribe PT was that doctor judged not to need PT for PWH in non-PT group. **(Fig 9)**
- ### <Knowledge tests>
- The collect rate of knowledge test was 23% (33/144 institutes) and PT group was 10 and non-PT group was 23.
 - The correct rate of PT group were generally higher than that of non-PT group. There was only one significant difference.
 - A half of physiotherapists (less than 60%), especially in non-PT group, answered to the questions about basic knowledge of hemophilia correctly **(Q01, Q03, Q08, Q10)**.
 - Some (60% and more) of physiotherapists answered to the questions about symptoms and blood examination correctly **(Q04, Q06, Q07, Q09)**.
 - Most (80% and more) of physiotherapists answered to the questions about physiotherapy correctly **(Q12, Q13)**.
 - Short summary: Half of physiotherapists lacked the knowledge about hemophilia.

Conclusions:

This study revealed three issues about PT in Japan. At first, most physiotherapist did not recognize about JHPTS. Secondary, number of participated physiotherapist and institutes in the JHPTS meeting was too small to promulgate the concept of and how to PT for PWH. Thirdly, physiotherapist did not understand important and effect of PT. We will continue the activity of JHPTS to inform many physiotherapists the importance and effect of PT for PWH.

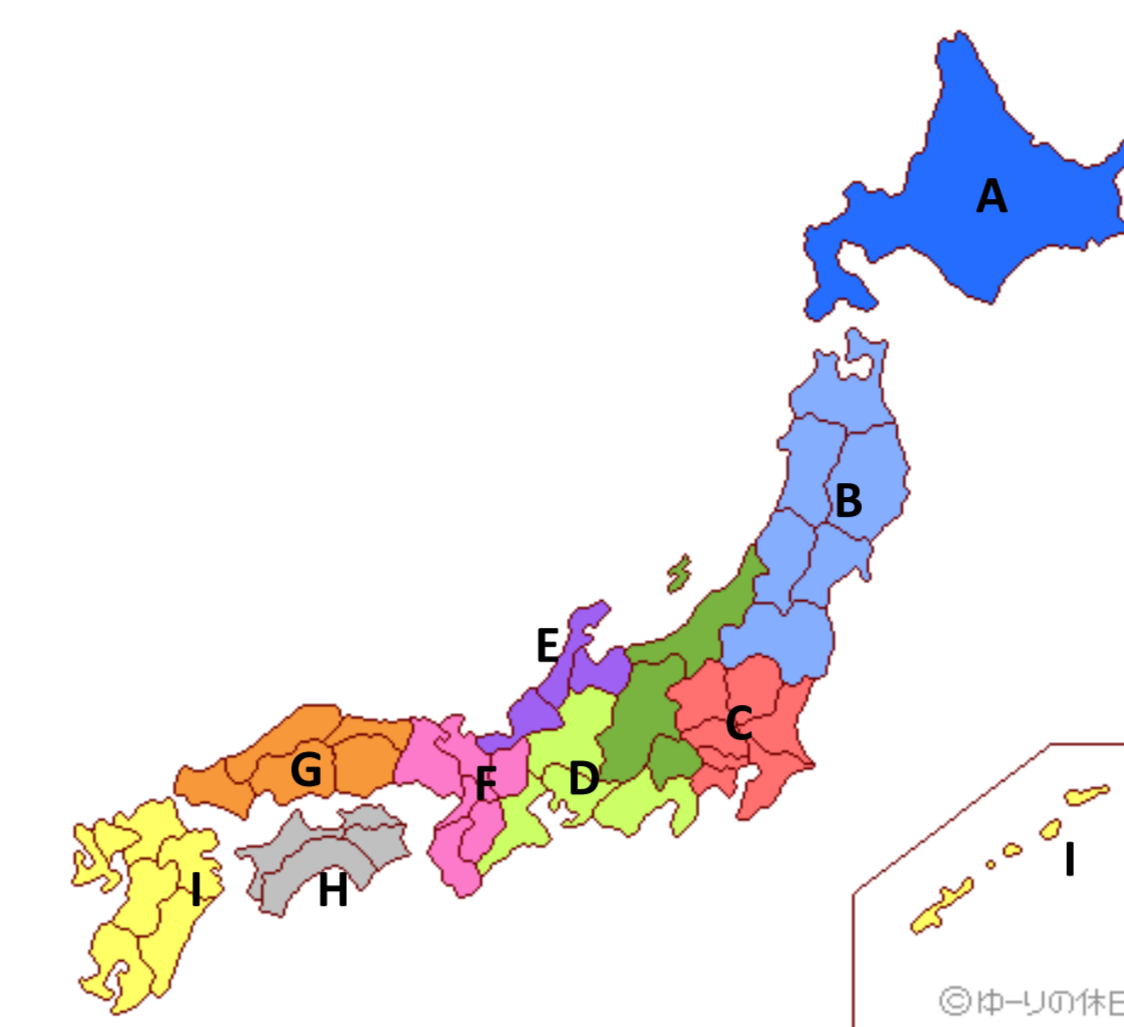
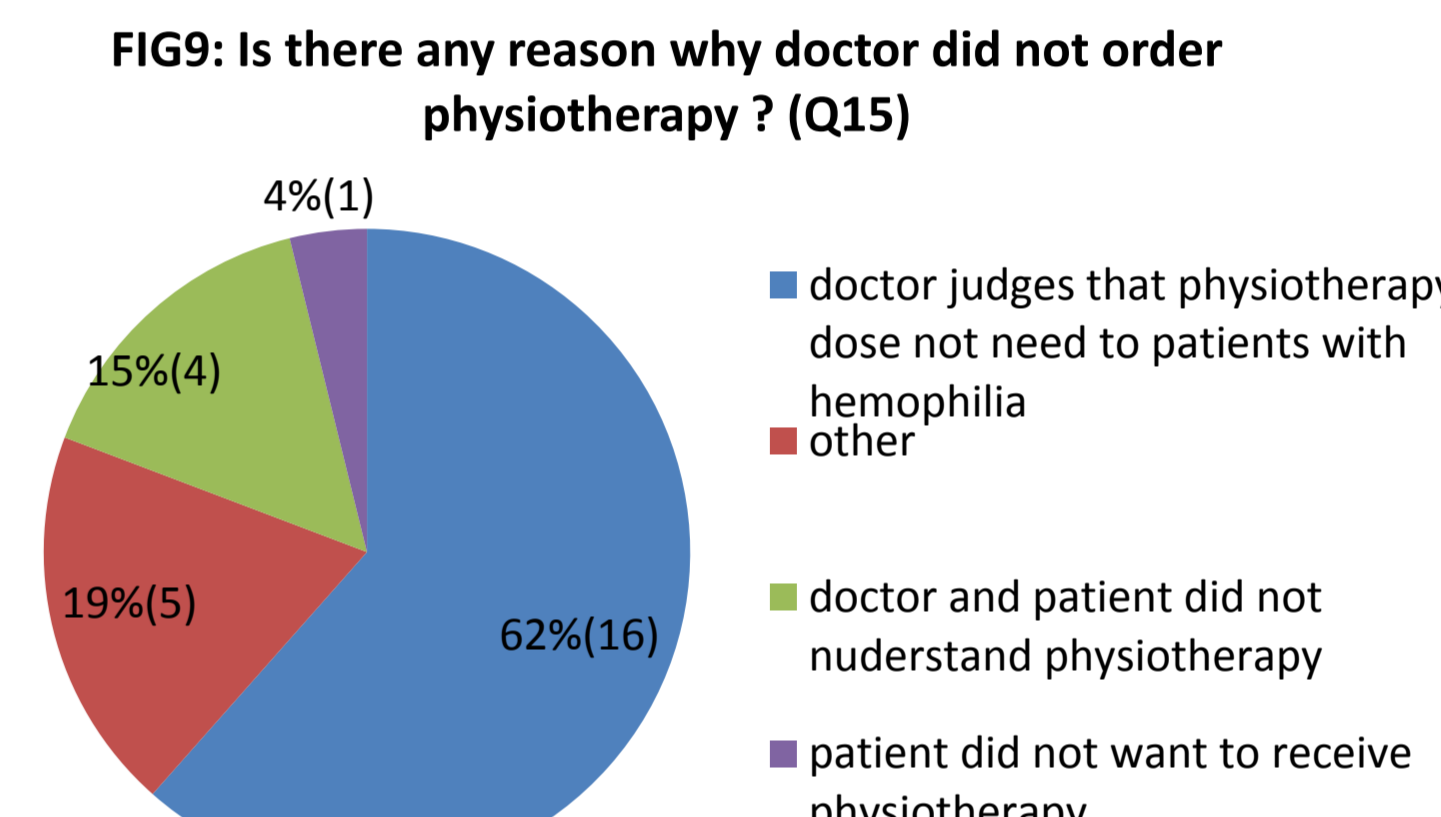
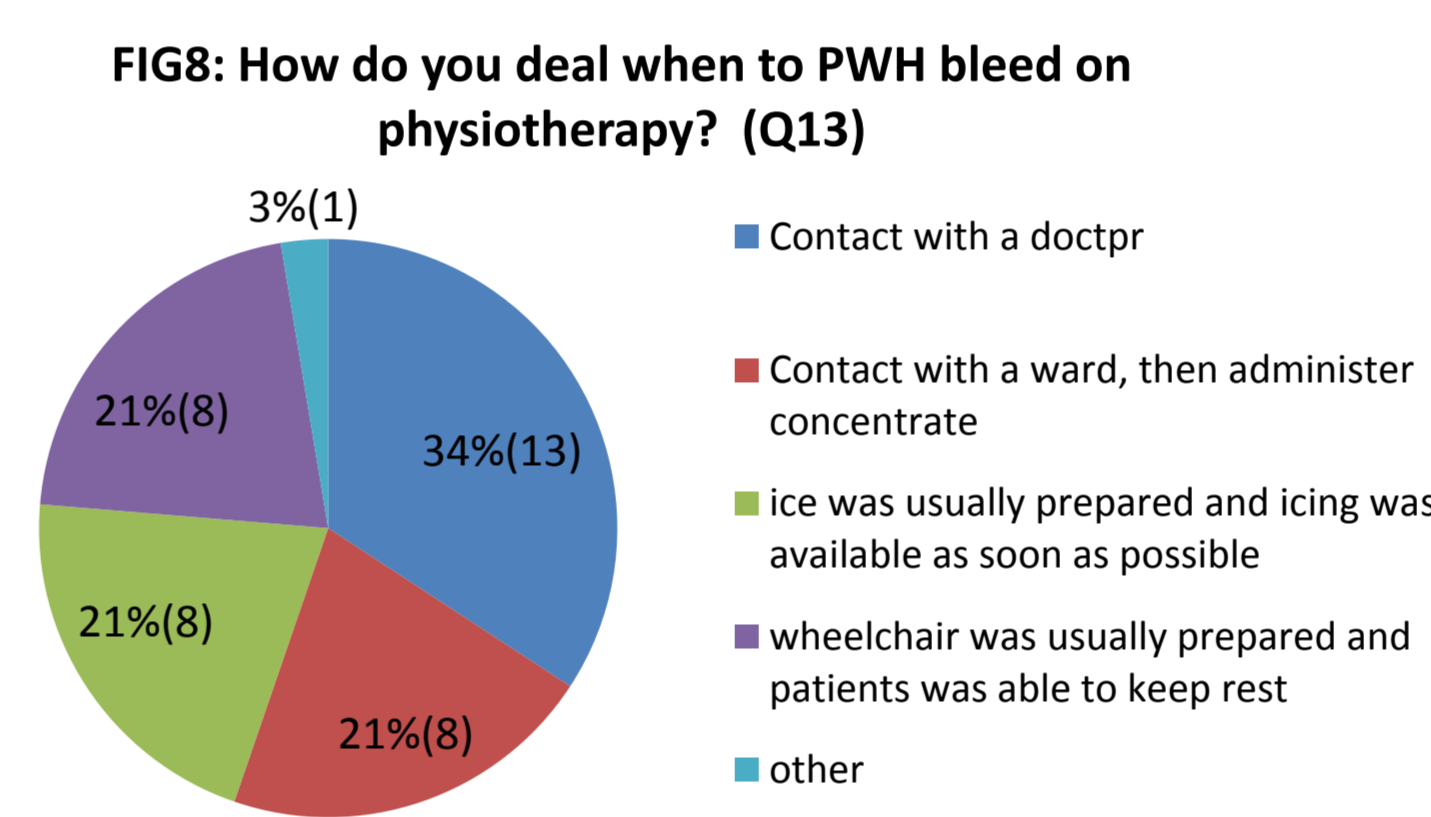
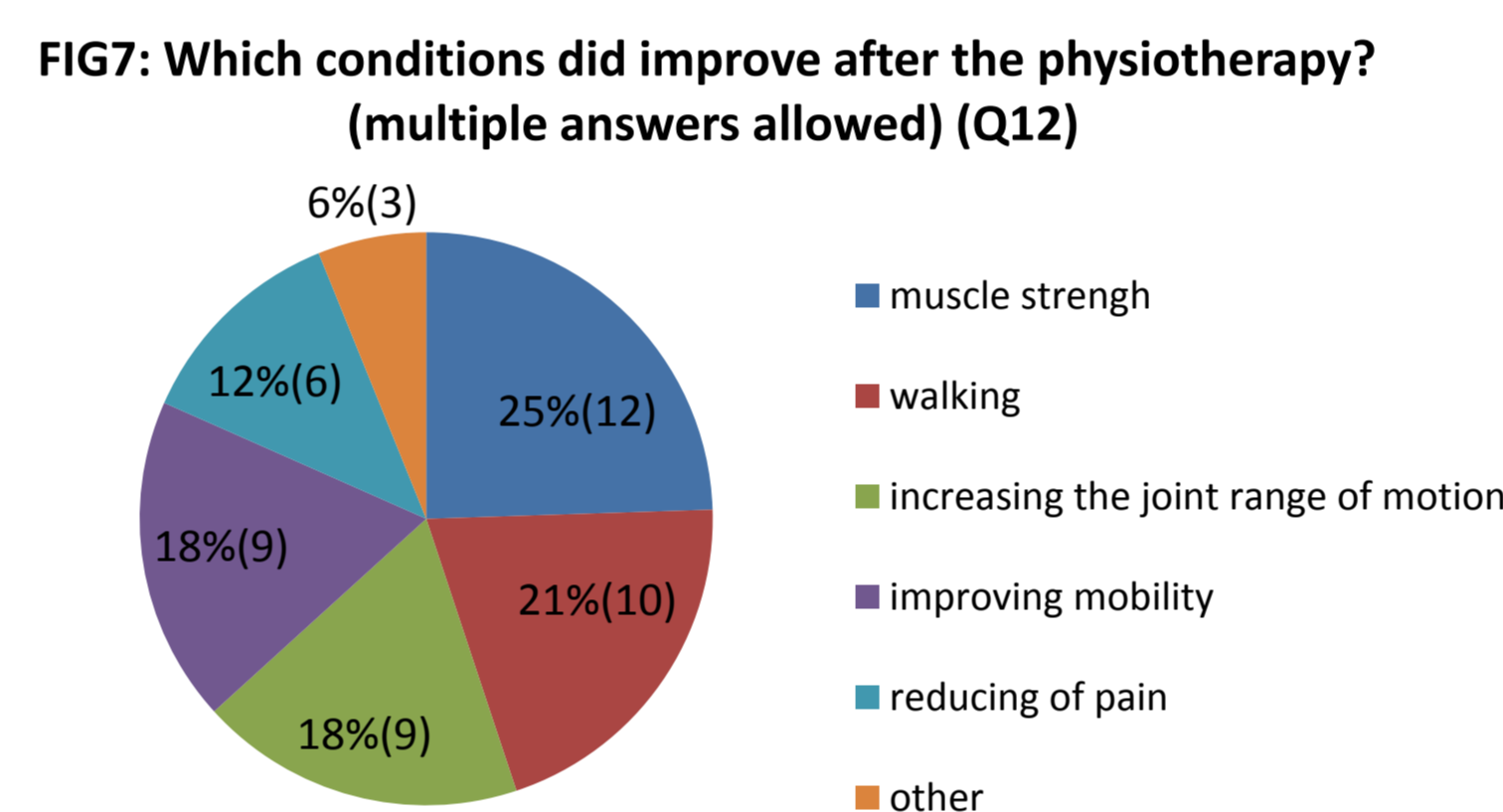
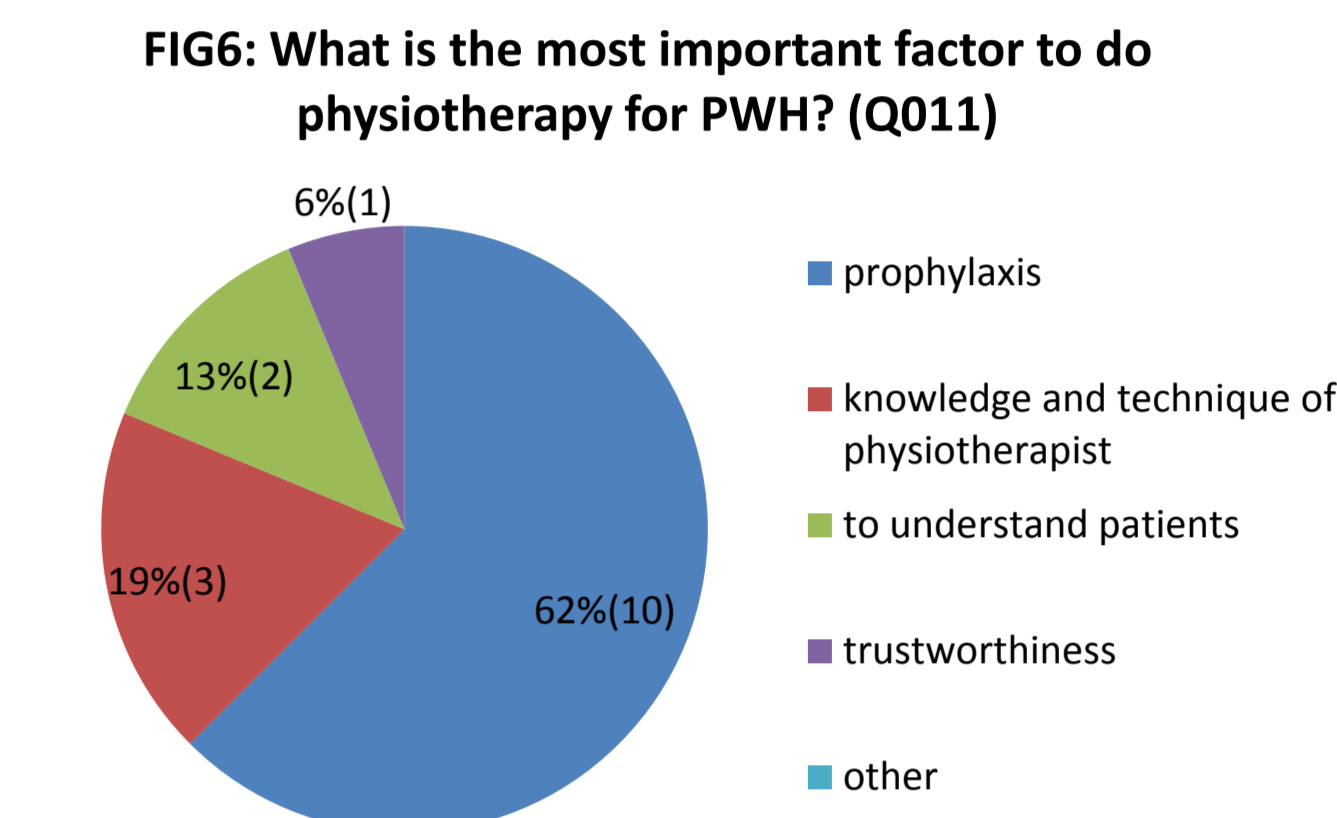
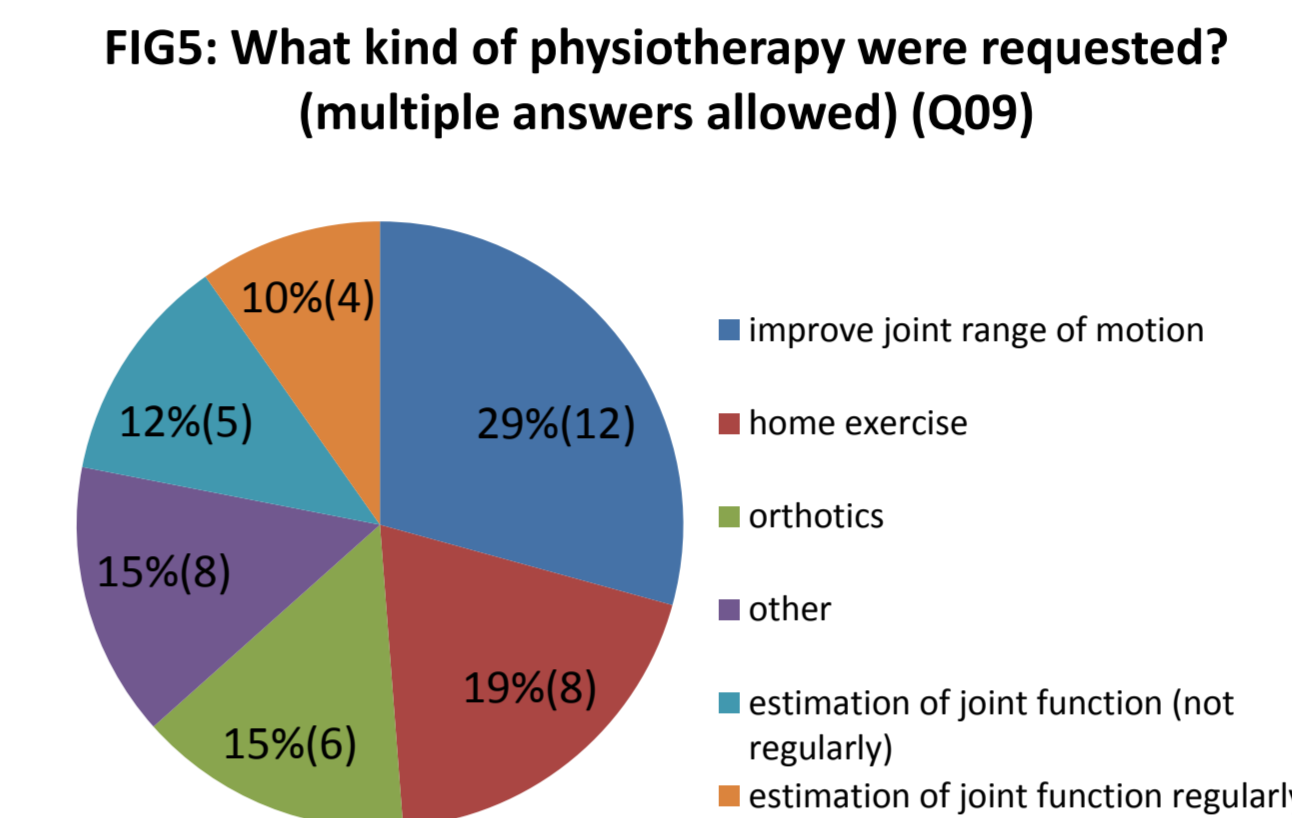
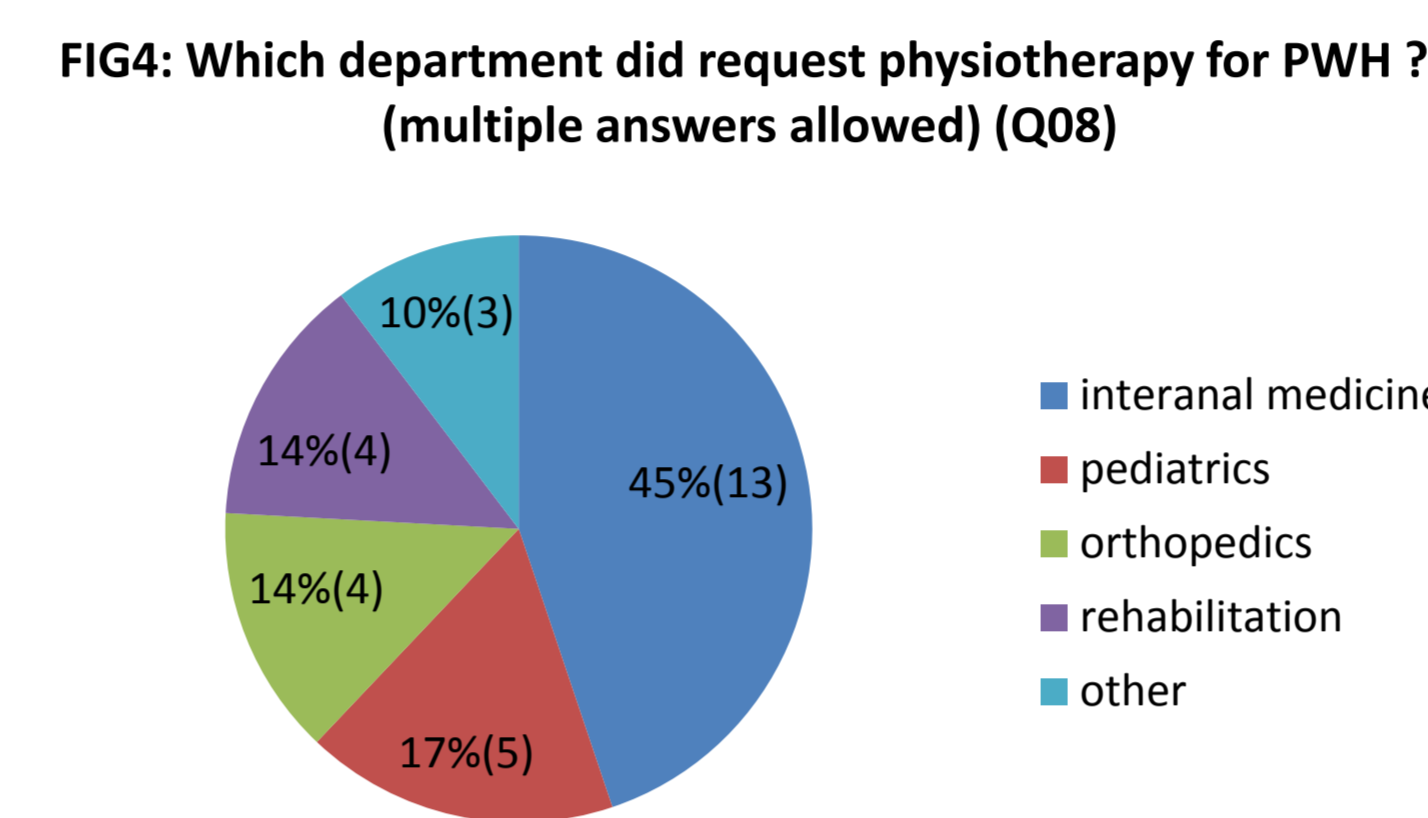
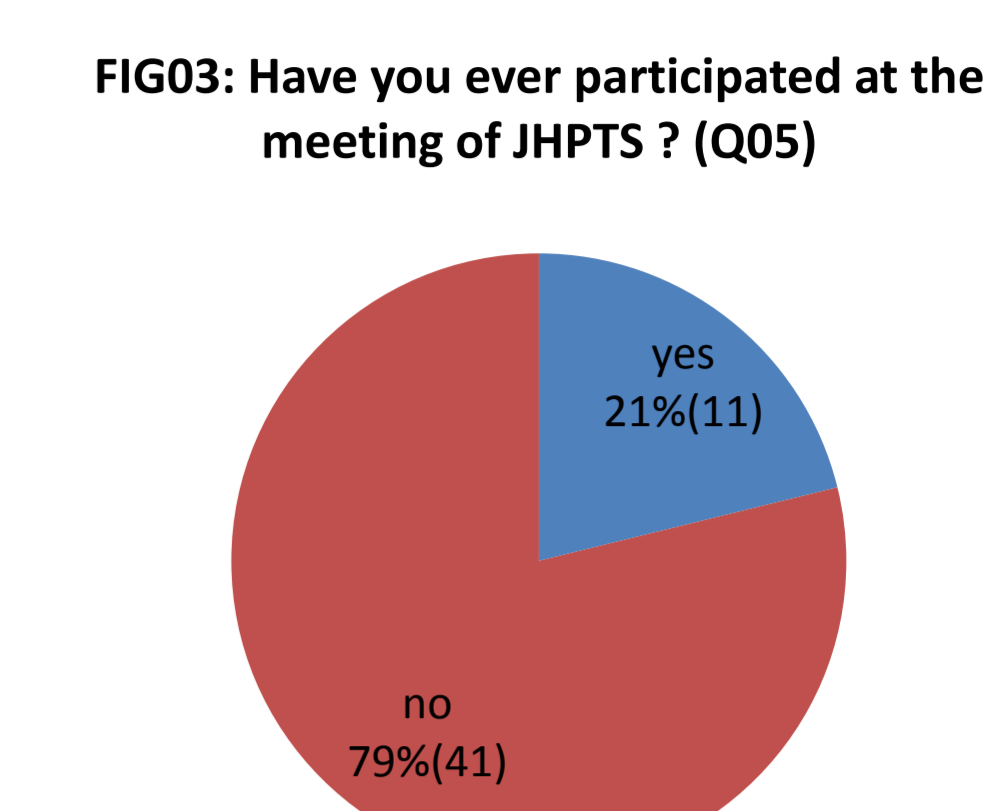
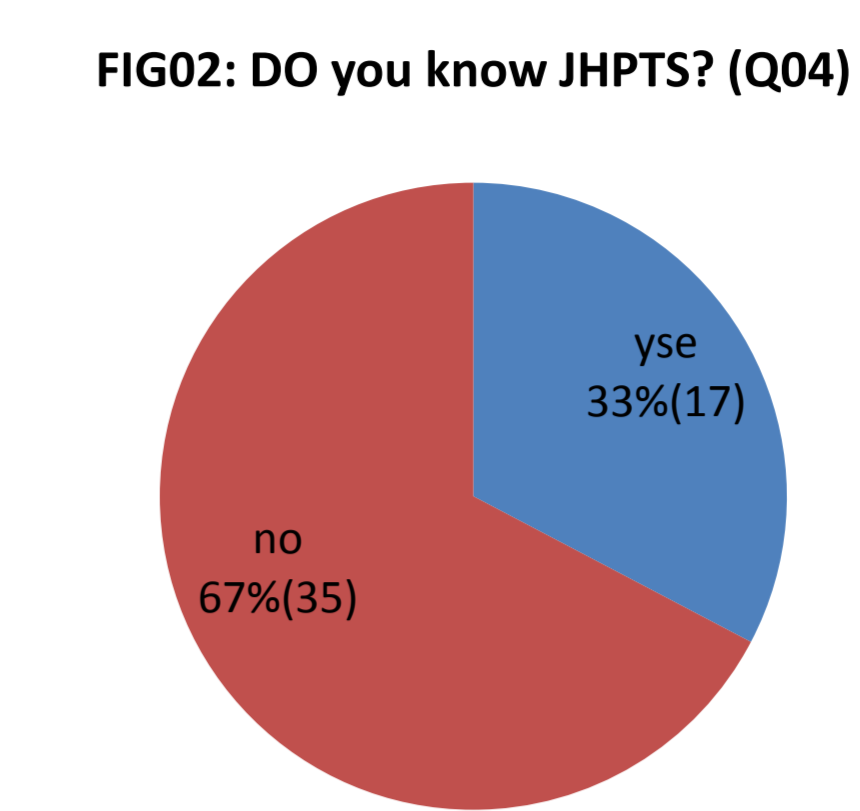


FIG01: Where do your hospital located? Show 16 PT group (Q01)

A: Hokkaido 0% (0)
 B: Touhoku 6% (1)
 C: Kannto 38% (6)/ Koushinetsu 6% (1)
 D: Toukai 6% (1)
 E: Hokuriku 6% (1)
 F: Kinki 6% (1)
 G: Tyugoku 19% (3)
 H: Shikoku 0% (0)
 I: Kyusyu/ Okinawa 13% (2)



Questions: Are these sentences "T" rue or "F"alse?	P rate
Q01: Hemophilia is a disease that is very easy to bleed.	P>0.o5
Q03: "Target joint" in hemophilia mean "joint has arthropathy".	P>0.o5
Q04: Repeated joint bleeds may result in hemophilic arthropathy.	P>0.o5
Q06: Repeated joint bleeds may result in joint dysfunction.	P>0.o5
Q07: Patient with hemophilia need prophylaxis therapy before physiotherapy.	P>0.o5
Q08: Use coagulation product when patient with hemophilia feel something strange at their joint.	P<0.05
Q09: Patient with hemophilia may need additional blood examinations when they do not feel efficacy after coagulation product is administered.	P>0.05
Q10: Bypassing products are required for inhibitor patients.	P>0.05
Q12: Doctor may prescribe orthosis for hemophilic arthropathy.	P>0.o5
Q13: Balance exercise can be one of the physiotherapy.	P>0.o5

